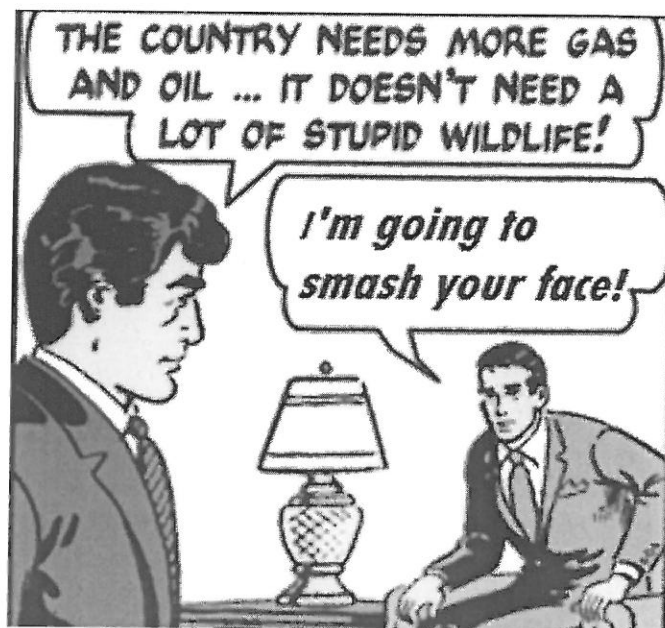


SL / HL Economics Paper I & Paper II

Practice Questions & Perfect Answers



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General Guidelines for the Exam

The aim of this book is to provide guidance to IB Economics students for the paper 1 and paper 2 higher level and standard level exams. The format of these papers is the same for both Higher Level (HL) and Standard Level (SL). The only difference between the two levels is in terms of the syllabus as the HL syllabus covers more content.

Paper 1 is described as an extended response question paper, popularly known by students as the 'long' essay paper. Each question is in two parts with part a) awarded a maximum of 10 marks and part b) a maximum of 15 marks. For the new syllabus, candidates are required to answer two questions, one from section A and one from section B.

Section A covers Microeconomics and section B covers Macroeconomics. There are two questions in each section. The time allowed is 90 minutes, which corresponds to 45 minutes per question. For the HL exam, paper 1 accounts for 30% of the total marks for the subject and for the SL exam it accounts for 40% of the total marks for the subject.

Paper 2 is a data response question paper. Each question has four parts, a) b) c) and d). Part a) consists of two definitions or short identification questions each with a maximum of 2 marks. Parts b) and c) are awarded a maximum of 4 marks each and require a diagram and/or an explanation of something referred to in the text. Part d) is awarded a maximum of 8 marks and requires a discussion or evaluation of the economic theory associated with the data, using references from the data and some application of economic theory or knowledge. For the new syllabus, candidates are required to answer two questions, one from section A and one from section B.

Section A covers International economics and section B covers Development economics. There are two questions in each section. The time allowed is one and a half hours which corresponds to 45 minutes per question. For the HL exam paper 2 accounts for 30% of the total marks for the subject and for the SL exam it accounts for 40% of the total marks for the subject.

How to Structure Your Economics Essay

It's important to use your time efficiently on economics exams. You only get 45 minutes per essay!!! And that's not much time to do everything you need to do. It's easy to waste time (i.e. with introductions or descriptive writing) that earn you no marks at all. If you use this structure you'll be sure to earn all of the possible marks for each of your IB Economics essays.

Some students will be able to write more than others, because they write more quickly. This structure was written with an average-writing-speed student in mind.

Part A (18 minutes)

Part A1: Definition and real life example

Definition: Define a key word in the question

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Real life example: Briefly explain a real life example. Two sentences maximum; you'll keep link back to this later in the essay.

Part A2: Draw and explain a diagram

Draw the diagram which will best help you to answer the question. Draw it accurately and fully labelled (I.e. "Price of Ice Cream, Quantity of Ice Cream, D1, S1, E1.") and with a title on top.

Tell us what the diagram shows, in general.

Explain a specific insight of **the diagram** (i.e. "As the diagram shows, the warmer weather results in a greater demand for ice cream. At Price P1, the quantity demanded increases from Q1 to Q2.")

Develop that insight further. Use points on the diagram to explain WHY greater demand for ice cream is causing the price of ice cream to increase. (i.e. "The rightward shift of the demand curve means that for any given price, more is demanded. And this puts an upward pressure on price. Producers get a signal from the market that there is excess demand, so they see that they can increase their prices and they do.") This is often where the high marks are hidden for Part A questions –making sense of the theory for The Reader. (I always say think of "The Reader" as a simple guy who doesn't understand any economics yet. He doesn't understand the theory yet and doesn't know any of your key words. If you can make this stuff make sense to such a person in the time allowed you're a rock star).

Miniconclusion: Link back to the question (answer the question). “So we can see that, it is likely that, in most cases, and an increase in supply will be followed by a decrease in the equilibrium price.”

Body 2 (Claim, counterclaim and mini-conclusion)

Claim: Explain something else the theory shows. Look to CLASPP for various ways to do this. We’ve already used “assumptions” (which is a very powerful one you should always try to include), so I’ll use stakeholders for this example. “Given that the market clearing price of vaccines will fall, a key advantage of the policy is that more consumers will be willing and able to consume them.”

Counterclaim: Criticize this claim

Mini-conclusion: Link back to the question (answer the question).

Body 3 (Claim, counterclaim and mini-conclusion)

Claim. (i.e. advantages)

Counterclaim (i.e. disadvantages)

Mini-conclusion. Answer the question (i.e. “Therefore the advantages outweigh the disadvantages in most cases”)

Conclusion (Synthesis)

Draw together the insights of the different mini-conclusions you have made in your body paragraphs and come to a measured, qualified conclusion. Make sure you also answer the question here. It’s easy to , but also try to say something original. Show that you understand that policy decisions are complicated. For example, implementing theories has unintended consequences (i.e. hurting some stakeholders).

Link your example to the diagram.

Part B (27 minutes)

Intro (Definitions, diagrams and case link)

It is okay to write things like, “As the diagram in Part A shows, ...” or “Demand, as defined in Part A, ...” However, sometimes you’ll need to include additional definitions and diagrams to help you explain your evaluative points in Part B. You’ll have to make a judgment call on this.

Definitions. Define words that require definition. At least one.

Diagram. Draw a diagram if you’re going to need it for your explanation. This will be required about 50% of the time. Basically, if there is a diagram that relates closely to the question and it’s not already in your Part A answer, you’ll have to include it here.

If you do include a diagram do it like this:

Explain the diagram. What does it show in general.

Explain a specific insight of the diagram (i.e. “As the diagram shows, the increase in the price of vaccines has little effect on the quantity demanded.”)

Develop that insight further using points on the diagram (i.e. “The large increase in price from P1 to P2, results in only a slight decrease in demand from Q1 to Q2”).

Link the example to diagram and the question. “Therefore a tax on vaccines will result in decreased demand and is therefore hurts some stakeholders.”

Mention a real life example that relates to the question. It might be the same one you used in Part A. And provide one detail about it (i.e. “China’s grain output rose 5.4 percent 2008.”)

Body 1 (Case link, claim, counterclaim and mini-conclusion)

Claim: Link your case back to the theory. “As the diagram above (or in Part A) shows, this increase in supply would likely have resulted in a decrease in the market clearing price.” So you are answering the question of the case using course theory and also using your example.

Counterclaim: Criticize the theory. You could say, “However, this depends on everything else remaining constant (*ceteris paribus*), which only occurs in theory.” Point out that it depends on *ceteris paribus*, which almost never occurs. Or point out that it’s purely theoretical; it cannot be tested. Or perhaps there is something else unrealistic about the theory. Challenging theory like this is tough, but there are a lot of marks for you if you can do it well.

Paper 1

Part 1: *General points*

In the exam, you will have five minutes of *reading time*. This time should be used to read each question carefully in order to decide which two questions should be attempted. Run through the definitions of terms and the relevant diagrams and select the questions which you feel best able to analyse. Give greater emphasis to part b) of the question as this carries more weight in terms of marks.

Once you have selected which questions to answer you need to decide which to answer first. Students usually begin with their favourite question. However, you must make sure that you do not spend more than 45 minutes on this question, so that you leave enough time to answer the second question.

Part a) will usually ask you to explain some economic concept and you should confine your answer to this explanation. No discussion or evaluation is necessary in part a). You should underline all the economic terms included in the question and give a clear and concise definition of each term. Your explanation will usually be assisted by the inclusion of one or more relevant diagrams and you must be careful to make sure that the diagrams are *clear, fully labelled and explained* so that they relate to the actual question. Diagrams do not require a title but should be numbered and referred to by number. This is especially important because you might want to refer to a diagram from part a) in your answer to part b) and you can only do this if you have numbered the diagram. You are not expected to duplicate diagrams or definitions in part b) that you have used in part a).

Part b) will usually be related to part a) but will often require a discussion or evaluation of a policy or a market situation. To do this effectively it is necessary to establish the criteria which you will apply. Possible criteria include: efficiency, desirability, effectiveness, advantages/disadvantages (costs/benefits), effects on different groups, differences between time periods and the relative importance of the points that have been identified. At least one of these criteria needs to be applied in order to secure the marks set aside for evaluation or discussion. Many questions are quite specific and require a specific answer which you should attempt to provide. If for example the question asks "to what extent...?" you should address this in your conclusion with a phrase such as: to a large extent or to a limited extent. Similarly, if the question asks you to discuss the effectiveness of a policy you need to include this in your conclusion with a statement which assesses the overall effectiveness. Hopefully, these points will become clearer in the section which presents answers to specific questions.

In the old syllabus the essay question was one hour long, but with the new syllabus each essay has to be completed in 45 minutes. *It is imperative that you apply strict time limits to your answers.* You should not spend more than 18 minutes on part a) which leaves 27 minutes for part b). There is no scope for long introductions and generalisations – you must get to the point quickly and be clear and concise. Do not waste time repeating definitions or duplicating the same diagrams. Remember that you are not expected to include every relevant point but to show knowledge of some of the relevant points. A good strategy may be to mention the relevant points and to select a few for detailed discussion or analysis.

Conventional wisdom for essay writing states that you should begin with a plan which sets out

the structure of the essay and the main points to include. Ideally this should be written down as a rough outline. This should prevent aimless rambling in search of relevant points. It also concentrates the mind on the question and helps to identify and remember the main points which should be included in the essay. Unfortunately, few students have developed the good habit of writing a plan, but I would urge you to at least make a mental plan before you start writing down your answer.

Finally, you should note that with the introduction of e-marking for economics exams it is not possible to differentiate colours, as everything is viewed by the examiner in black and white. Therefore, you should not use coloured pencils or pens in your diagrams.

Part 2: *Questions and Answers*

Section A: Microeconomics

In the SL examination, typical questions will be set on the role of the price mechanism, elasticities, government intervention through price controls, agricultural markets and market failure.

For the HL examination it is most likely that at least one of the two questions will be on some aspect of the theory of the firm as this is the main distinctive topic of HL. In addition to this, all of the above mentioned standard level topics are possible, but the most likely are elasticities and market failure.

The answers provided are not presented as perfect examples that would secure maximum marks, but rather as sound answers that cover the main points and would normally be awarded the highest level. For question 1, I have provided an introduction to the approach and technique of answering a question, but for all subsequent questions I have simply provided a suitable answer.

Question 1

a) Explain the importance of price elasticity of demand and price elasticity of supply for the stability of primary product markets.

b) To what extent should the government intervene to regulate the prices of primary products?

Before proceeding with an answer to this question, I will identify some of the points mentioned in the general introduction above.

a) The first task is to identify any economic terms which require a definition. There are three such terms: PED, PES and primary product markets. In order to explain their importance, it will be necessary to consider the numerical values of elasticity and to show how a low elasticity contributes to large price changes in response to shifts in demand or supply. The best way to do this is by including one or more relevant diagrams.

- Make sure that the diagram(s) is clearly drawn and fully explained.
- Remember that primary products are not just agricultural but include minerals.
- Some mention of factors other than elasticity could be made in order to emphasise the importance of elasticity.

b) This part of the question is not directly related to elasticity and so does not require further discussion of PED/PES. The question is normative since it requires a value judgement indicated by the word “should”. In order to reach a conclusion regarding the “to what extent” question, it is necessary to identify the types of intervention, such as a minimum or guaranteed price. Then some assessment of the effects and effectiveness of the policy is necessary. Though not specifically asked for, some examination of the alternative (free market – non-intervention viewpoint) is implied.

Analysis of a buffer stock scheme could be useful but is not required as it has been removed from the new syllabus.

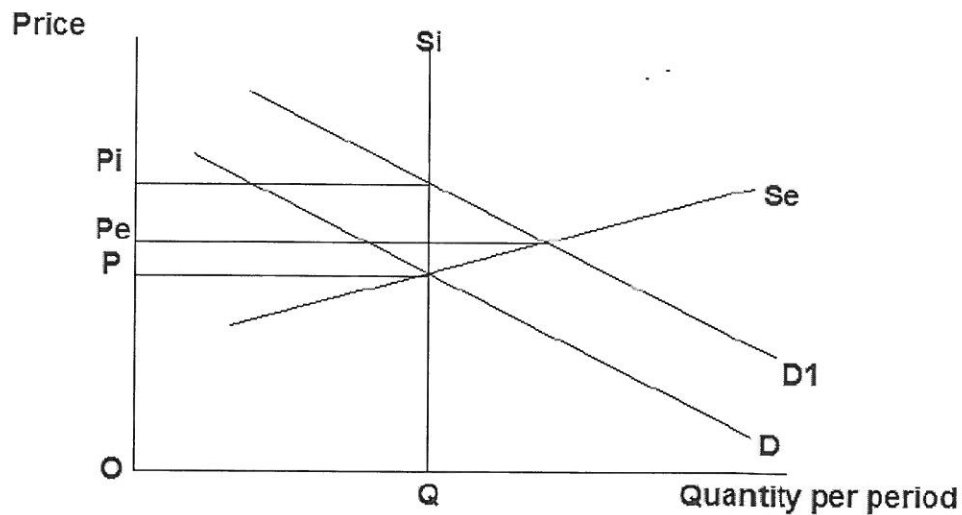
There is no *expected* answer to this question so well-argued support for intervention or non-intervention will be equally rewarded. Examiners are always encouraged to accept different approaches as long as the points are discussed or evaluated clearly and with appropriate references to the relevant criteria. For this particular question some comparison of effects on different stakeholders would seem appropriate together with some distinction between short and long run effects.

Answer:

1a) Price elasticity of demand (PED) is a measure of the responsiveness of quantity demanded to a change in price and price elasticity of supply (PES) is a measure of the responsiveness of quantity supplied to a change in price. Primary product markets are those in which commodities relating to the factor of production land are traded. They include agricultural commodities such as coffee, cocoa, wheat and cotton and minerals such as copper, zinc and iron ore.

Primary product markets are typically much less stable than the markets for manufactured goods. This relative instability is observed through frequent and often large fluctuations in prices and consequently the incomes of producers. Price fluctuations can be caused by changes in demand or changes in supply. In the case of agricultural commodities it is the supply side of the market which is mostly unstable, while for non-agricultural markets it is mainly the demand side that is unstable. The effect of shifts in demand or supply on price will be determined by PED and PES. The more inelastic they are, the greater the impact on price. Primary products are typically inelastic in both supply and demand. Supply is inelastic because it usually takes a relatively long time to change. For agricultural goods supply cannot be changed from one season to another and for minerals it takes time for new mines to be discovered and exploited. For many commodities, supply will be perfectly inelastic in the short run. The importance of elasticity can be seen in diagram 1.

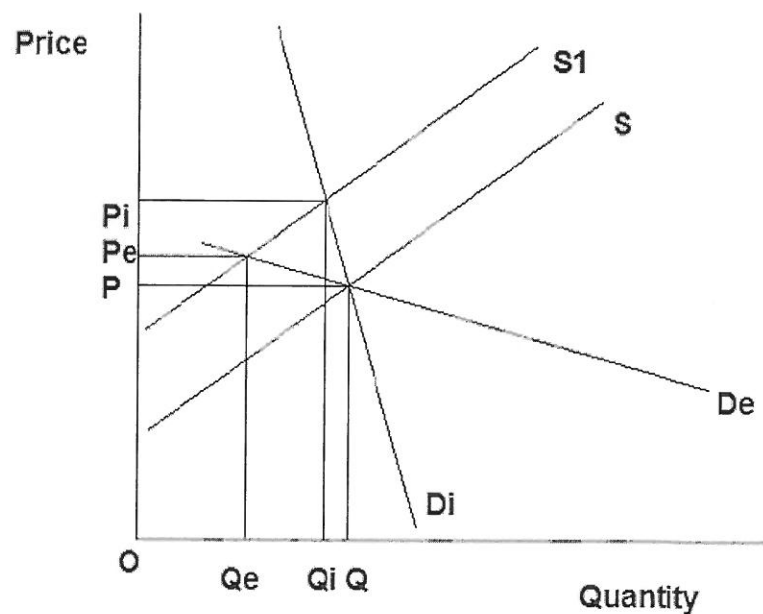
Diagram 1



In diagram 1 it is assumed that the demand for the primary product increases from D to D_1 . It is clear that with the inelastic supply S_i the increase in price is from P to P_i whereas if supply was more elastic as shown by S_e , the price increase would be from P to P_e which is much less.

Similarly the demand for primary products tends to be relatively inelastic because they are basic commodities often with few close substitutes. The importance of this is shown in diagram 2.

Diagram 2



In diagram 2 it is assumed that there are unfavourable growing conditions for coffee so the supply of coffee will shift to S_1 . With the inelastic demand D_i the price rises to P_i , but with the more elastic demand D_e the price rises by less to P_e .

Diagrams 1 and 2 clearly show the importance of PED and PES in determining the extent of instability in primary product markets; the lower the elasticity, the greater the effect of any change in market conditions on price. However, elasticity is not the cause of instability. The higher degree of instability in primary product markets compared to the markets for manufactured goods is caused by the more frequent and unpredictable shifts in supply and demand as a result of natural phenomena, supply lags and cyclical fluctuations in demand.

1b) Although the free market generally operates smoothly to allocate resources efficiently, there are some occasions when it fails to achieve the socially optimum or best allocation of resources. Such cases are described as examples of market failure and provide a potential justification for government intervention. Market stability is not guaranteed in a free market and some economists consider the relative instability of primary product markets to be a form of market failure. If this is the case, then some form of government intervention could be justified, but free market supporters would argue that government intervention that interferes with the role of the price mechanism would create more problems than it solves and would replace market failure with government failure.

In order to assess the extent to which the government should intervene to control prices of primary products it is necessary to examine who is affected by uncontrolled prices and who will benefit or lose from price controls. It is also relevant to consider how prices would be controlled and whether such controls represent the best solution.

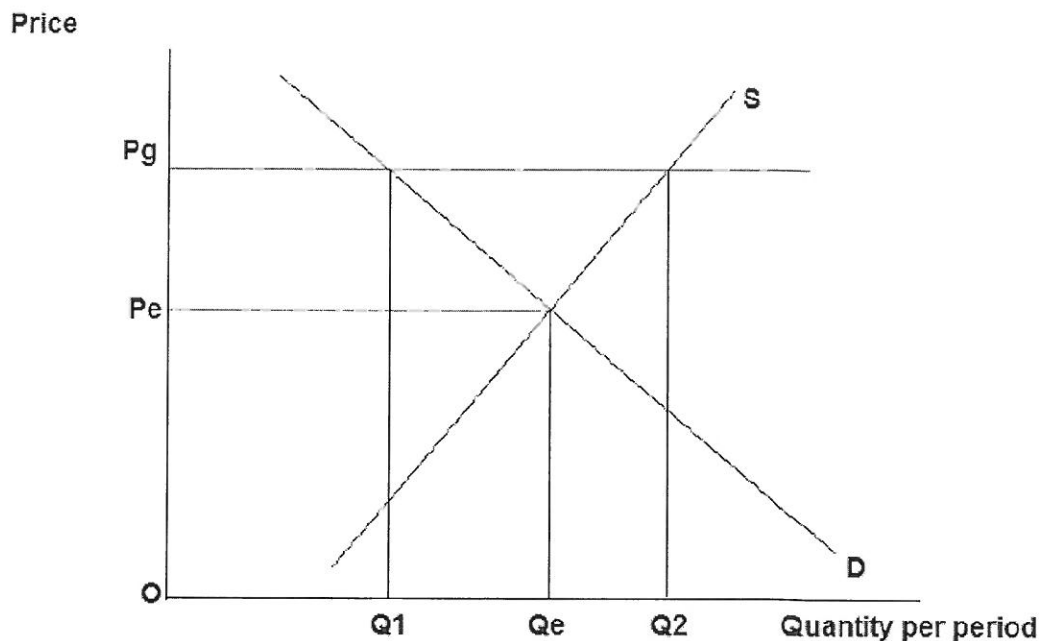
Prices perform the important function of providing signals in the market that co-ordinate the actions of buyers and sellers and determine the allocation of resources between competing uses. Any interference with these price signals might lead to market distortion and a less efficient allocation of resources.

Supporters of market intervention would claim that the frequent and often large fluctuations of prices in these markets fail to send out clear signals and have a destabilising effect in the market. Sometimes prices might be high so that producers benefit and at other times prices might be low so that consumers benefit, but rarely will both sides of the market benefit simultaneously. It can be argued that a stable price would remove uncertainty and would be beneficial to both consumers and producers, in which case government intervention that succeeded in stabilising prices could be justified.

One problem that the government faces is to decide at what level to stabilise prices. Should it aim to benefit producers with a high price in the form of a guaranteed price above the equilibrium price or should it aim to benefit consumers with a low price in the form of a maximum price below the equilibrium price? Both of these policies have some undesirable consequences because the market will fail to clear. Maximum prices below the equilibrium create excess demand and lead to parallel markets where the products are sold at illegally higher prices. Unless the low income consumers can be guaranteed access to the product, they will be unable to compete in the parallel market.

Similarly, guaranteed prices above the equilibrium will create excess supply which the government will have to remove from the market and either store or destroy. Buying and storing this excess supply will be costly as can be seen in diagram 3.

Diagram 3



In diagram 3 the guaranteed price of P_g leads to a surplus of $Q_1 - Q_2$ that the government will have to buy and remove from the market. The total cost of this will be $Q_1 - Q_2 \times P_g$ and there will be further costs for storing or destroying this surplus. In addition, there is the opportunity cost of the wasted production. Furthermore, there is an incentive to producers to over-produce in the future in the knowledge that the excess supply will be bought. All of this seems to be a high price to pay for a benefit to some producers.

An alternative might be to give subsidies to some farmers as this would reduce their production costs and encourage more output at a lower price. In this way both consumers and producers might appear to benefit. In the long run however, the cost of the subsidy would be paid by the taxpayer who is indirectly the consumer. None of these forms of government intervention represent effective or efficient solutions to the problem of market instability and it might be better to let the free market operate without any intervention.

It would probably cost less to give income supplements to the low income consumers who suffer from high food prices and to the poorest farmers who suffer from low prices rather than implement such wide ranging policies that distort the market and face a large actual and opportunity cost. Overall, it would probably be best to limit government intervention to a small extent and to target the low income consumers and producers only.

Question 2.

a) Explain why the use of fossil fuels for transportation can lead to market failure. (10 marks)

b) Evaluate the policies that might be introduced to correct such market failure. (15 marks)

2a) Market failure occurs when the free market is unable to achieve the socially optimum or best allocation of resources. This is because the market is only able to equate the economic costs and benefits of a transaction. It is possible however, for economic transactions to have wider effects on society or on third parties in addition to the economic effects on the two parties which engage in the transaction. These effects are known as externalities because they are outside the scope of the economic effects considered by the market.

Fossil fuels such as oil and its derivatives are used for many transportation services such as cars, trucks, ships and aeroplanes. The use of this fuel can generate negative externalities because it creates a cost to society in excess of the economic cost involved in its production and consumption. This cost is a result of the atmospheric pollution that is created and which most scientists consider to be a major cause of global warming and climate change. Driving a car leads to Co₂ emissions that have negative effects on society through pollution and its effects on people's health. These effects constitute a negative externality of consumption which leads to a market failure of over-provision and overconsumption as illustrated in diagram 1.

Diagram 1

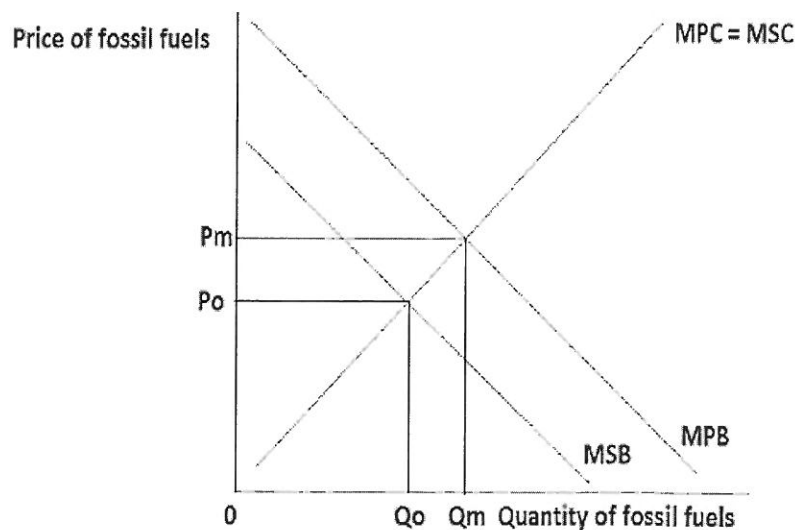


Diagram 1 shows that the free market will equate the market supply and the market demand which are represented by marginal private cost (MPC) and marginal private benefit (MPB) respectively. This leads to a market price of P_m and a quantity of Q_m . The market, however, has failed to include the cost of the negative externality of consumption which means that the marginal social benefit (MSB) is less than the MPB and so the socially optimum output and level of consumption should be at Q_o . The amount $Q_m - Q_o$ represents the market failure of overconsumption. Similar market failures occur as a result of the fuel consumption through sea and air travel. The inability of the market mechanism to reflect these externalities is what leads to market failure.

2b) If the government wishes to correct this type of market failure, it has to find a way of reducing the overconsumption and overproduction of fossil fuel based transport services. The policy alternatives

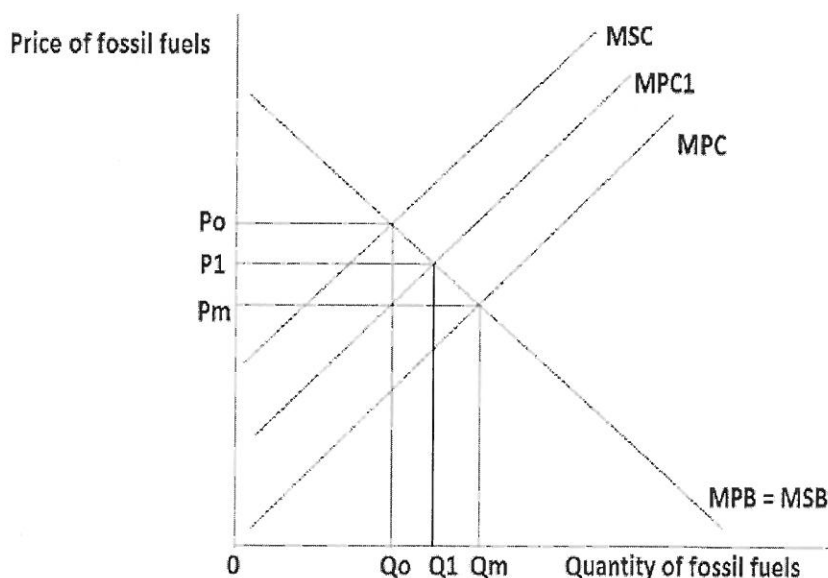
can be distinguished between those that rely on rules and regulations and those that apply the principles of the market, i.e. market based solutions. In order to evaluate the various alternatives it is necessary to compare their effectiveness, cost, fairness and the wider economic effects. Not all possible solutions are appropriate or desirable and it is sometimes the case that attempts to reduce a market failure actually create more problems, which can be described as a government failure. For example, an effective ban on the use of fossil fuels would reduce or even remove the externality, but it would also bring the economy to a standstill with disastrous consequences. Such a policy would not be appropriate because the costs would outweigh the benefits.

An alternative would be to require the use of less polluting fuel and engines, but such policies are difficult to enforce and monitor. In many countries such laws are ignored or bypassed through bribery and corruption.

Rules and regulations are only efficient if the aim is to prevent a particular activity and if the regulation can be enforced; for example, restricting access by cars to a pedestrian area. However, if the aim is to reduce a particular activity, then regulations are not very effective as their impact tends to be arbitrary and not easily calculable.

This is why market based solutions are increasingly favoured by governments: they allow the externality to be internalised and thus the problem is tackled at its source. Market based solutions include taxes, subsidies and tradable pollution permits. In the case of negative production externalities such as those generated by air flights, a tax on airline tickets could reduce the negative externality and reduce the amount of market failure. This is shown in diagram 2.

Diagram 2



The imposition of a tax shifts the supply to the left and as a result the MPC moves closer to the MSC, thus reducing the external cost and the extent of market failure from $Q_m - Q_o$, to $Q_m1 - Q_o$. A difficulty with such policies is the calculation of the external cost in order to find the appropriate tax. An advantage however, is that the tax revenue could be used to subsidise cleaner forms of

transportation such as trains or trams, or even to fund research into developing alternative fuel sources.

An increasingly popular market based solution is the introduction of tradable pollution permits. This encourages firms to develop and adopt less polluting engines and fuel while at the same time giving highly polluting firms the opportunity of buying permits in the market until they can bring down their pollution levels. The EU is currently hoping to introduce such a system for airline companies in order to reduce the growing contribution that air travel has on air pollution.

The effectiveness of such policies is yet to be seen and there is considerable opposition from non-European airlines. There is also the problem of enforcement and regulation of the permit market. Despite this, the policy does at least enforce the principle of making the polluter pay as well as encouraging firms to develop and adopt cleaner technology.

Overall, market based solutions are a more effective way of tackling the market failures associated with transportation services.

Question 3

a) Why is the demand for some products more price elastic than the demand for other products? (10 marks)

b) Discuss the usefulness of knowledge of price elasticity of demand to businesses and the government. (15 marks)

3a) Price elasticity of demand (PED) measures the responsiveness of quantity demanded to a change in price. A numerical value can be calculated as:

$PED = \frac{\% \Delta QD}{\% \Delta P}$. If the value is greater than 1 it means that demand is price elastic, if less than 1 demand is price inelastic and if equal to 1 demand is of unit elasticity. For example if the PED for a good = - 2 it means that quantity demanded will fall by 20% when the price of the good increases by 10%.

There are various factors which influence the PED for a product and the most important is the availability of close substitutes. The more close substitutes there are for a good, the easier it is for consumers to switch to an alternative if the price of a product increases. For example, if the price of one brand of beer increases, consumers can easily find a substitute to switch to and the demand is likely to be quite price elastic. In contrast, if the price of petrol increases, it is difficult for motorists to find alternative fuel for their cars so the demand is likely to be price inelastic.

In addition to substitutes, PED is also influenced by the importance of the product in the consumer's budget. Most households will spend a very small proportion of their income on salt or matches and therefore the PED for these goods is likely to be quite inelastic. A 10% change in the price of salt is likely to have a very small effect on the quantity demanded. Some products such as cigarettes and alcohol are habit forming and this will tend to make demand for them quite inelastic because consumers find it difficult to reduce consumption when prices increase.

Time is also important because it will take time for consumers to adjust their spending following a price change. For some products demand will be much more elastic in the long run than in the short run, while for others the adjustment might be very quick.

Basic products such as food also tend to be more price inelastic than goods that are less

essential, such as holidays abroad. There are several factors that influence the PED for a product, but by far the most important will be the availability of close substitutes.

3b) Knowledge of PED is useful to a business firm because it allows it to estimate the effect on the demand for its product following a price change. More specifically, it allows the firm to estimate the effect on its total revenue following a price change and with this information the firm can decide whether to change its price. If, for example, a firm knows that the PED for its product is -0.5 , it can be certain that an increase in price will lead to an increase in its total revenue. Assuming that the current price is \$10 per unit and it sells 500 units per week, an increase in price by 20% to \$12 will lead to a decrease in demand by 10% to 450 units per week. Total revenue ($P \times Q$) was originally \$5000 and now it rises to \$5400. Since less is now being produced and sold, it must be true that total costs to the firm have decreased. Therefore, the increase in total revenue combined with the decrease in total cost will lead to an increase in the firm's profit.

However, if the PED was elastic, then an increase in price would lead to a decrease in total revenue while a decrease in price would lead to an increase in the firm's total revenue. Clearly, having accurate knowledge of PED is very useful to a firm which is considering a change in its price.

Knowledge of PED is also useful to the government. Whenever the government pursues a policy that influences prices, the effect will be determined by the PED.

One example is the imposition of taxes on goods. The aim is either to increase revenue or to influence consumption. Either way, the effect can only be calculated with accurate knowledge of PED. Increasing taxes on goods with inelastic demand will increase tax revenues, but increasing taxes on goods with elastic demand will decrease tax revenues.

Knowledge of PED also helps the government to achieve the desired influence on the consumption of products. For example, if we assume that the government wants to reduce smoking by 20% for health reasons and it knows that the PED for cigarettes is -0.5 , then it knows that a price increase of 40% will be necessary to achieve its target and the necessary tax increase can then be calculated. Similarly, if the government wants to reduce road congestion through tolls or a congestion charge, it needs to know the PED so that it can calculate the appropriate charge.

Knowledge of PED is clearly useful to both firms and the government because it allows them to calculate the effects of price changes on total revenue and on consumption targets.

Question 4

a) Explain why firms in perfect competition can only make economic (abnormal) profit in the short run.

b) Discuss the view that perfect competition is more desirable than monopoly.

4a) Perfect competition is a largely theoretical market structure which exists under the following conditions. There are a large number of small firms in the industry each producing an insignificant proportion of the total market supply as well as many individual buyers. Each firm produces an identical or homogeneous product. There are no barriers to the entry or exit of firms and there is

perfect knowledge of the market. These conditions mean that the individual firm is a price taker because it can only charge the price which is established in the market through the interaction of market demand and market supply. No firm can charge more than the market price because consumers are aware that they can buy perfect substitutes at the market price. Each firm is able to sell any amount that it produces at this price and therefore it faces a perfectly elastic demand at the market price with constant average revenue (price) = marginal revenue. This is illustrated in diagram 1.

Diagram 1a

Diagram 1b

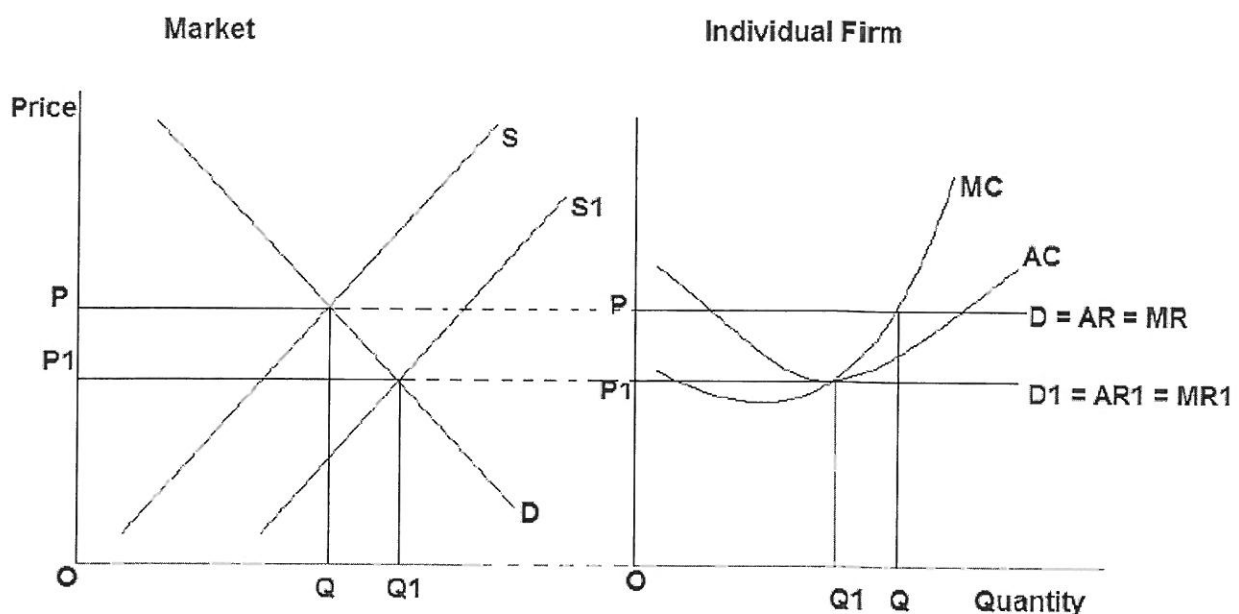


Diagram 1 a) shows the determination of the market price and 1 b) shows how the individual firm is obliged to accept this price. Initially, market price is determined at P through the interaction of S and D and the individual firm is obliged to take this price and faces a perfectly elastic demand at P so that $AR = MR$.

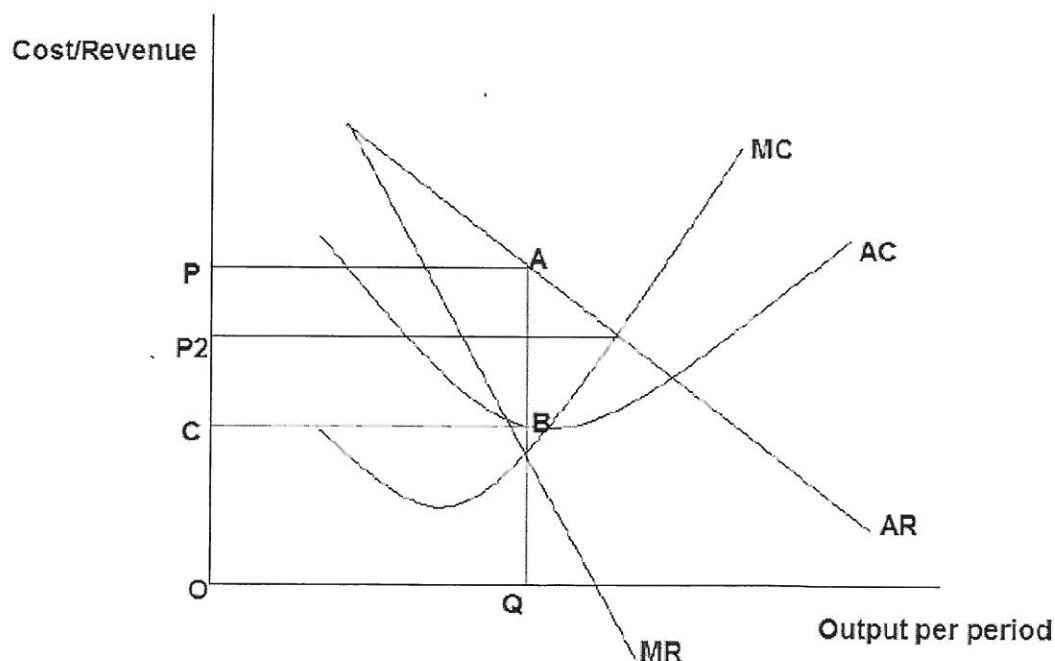
Assuming that the firm wishes to maximise its profit, it will produce the output for which marginal revenue equals marginal cost. This occurs at output OQ and since at this output average revenue is greater than average cost, the firm is able to make economic profit which is an amount more than the opportunity cost of the entrepreneur. This situation is possible in the short run but not in the long run. The short run is the period when at least one factor of production is fixed and cannot change. This means that new firms are not able to enter the industry in the short run. In the long run, however, the economic profit will attract the entry of new firms and as they enter the market supply will begin to increase causing market price to fall and thus decreasing the level of economic profit. This process will continue until there is no further incentive for new firms to enter because only normal profit is being made. This occurs when supply has increased to $S1$ and price has fallen to $P1$. Long run equilibrium will be established at $P1$ with all firms making just normal profit at output $Q1$ where $AR = AC$ and $MC = AC$.

In perfect competition the fact that there are no barriers to entry of potential competitors means that economic profit cannot be maintained in the long run.

4b) Perfect competition has traditionally be viewed as an ideal market structure especially when compared to monopoly, which exists when there is only one firm in the industry and where there are effective barriers to the entry of potential competitors. This view is based on the fact that perfect competition satisfies the criteria for both allocative and productive efficiency whereas monopoly fails to achieve these efficiencies.

Allocative efficiency is achieved when the consumer pays the exact opportunity cost of production and this occurs when price is equal to MC. Productive efficiency is achieved when the firm produces at the lowest point on its AC which is where MC equals AC. Diagram 1b in part a shows that in long run equilibrium both criteria are satisfied. In contrast, since the monopolist faces a downward sloping demand, which in a pure monopoly is the market demand, it is impossible for the efficiency criteria to be achieved because MR is always below AR so where $MC = MR$, AR is above MC. This is evident from diagram 3 which shows a profit maximising monopolist earning economic profit.

Diagram 3



The monopolist will produce output OQ where $MC = MR$ and charge price OP. At this price $AR > AC$ by the amount AB and the monopolist is earning economic profit equal to the area PABC. It is clear that the price is above MC and the price that would achieve allocative efficiency is at OP2 where $P = MC$. In addition, the monopolist is not producing at the lowest AC and so fails to achieve productive efficiency.

However, it is not certain that achieving these efficiency criteria is sufficient to make perfect

competition more desirable than monopoly. Apart from efficiency, the desirability of a market structure is determined by the level of price and output, the variety and quality of products and the prospects for innovative growth through research and development. When comparing perfect competition with monopoly according to these criteria, the desirability of perfect competition is questionable.

As the only firm in the industry, a monopoly is likely to operate on a large scale and to have considerable scope for earning economies of scale. Compared to small scale firms in perfect competition, the monopolist is likely to have much lower costs and this could lead to a lower price and higher output as shown in diagram 4.

Diagram 4

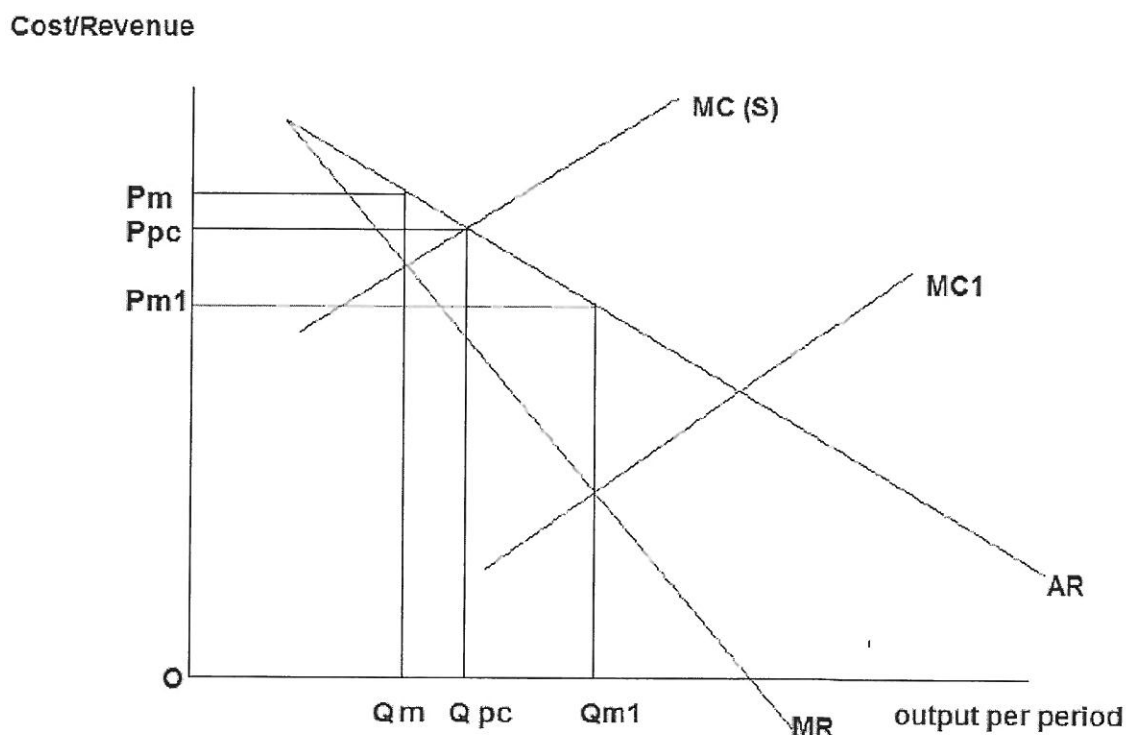


Diagram 4 shows the effect on price and output of transforming a perfectly competitive industry into a monopoly. If costs of production, represented by $MC (S)$, remained the same, then monopolisation would lead to an increase in price from P_{pc} to P_m and a decrease in output from Q_{pc} to Q_m . This comparison is unrealistic, however, because the transformation is likely to reduce costs significantly, e.g. to $MC1$. Now price P_{m1} is below P_{pc} and output Q_{m1} is greater than Q_{pc} . Even though the efficiency criteria are not met, monopoly price and output are more desirable than those in perfect competition.

With respect to choice, variety and quality there is no difference between the two markets, but there is likely to be a difference in the incentives for long term dynamic growth through innovation. According to Schumpeter and his theory of creative destruction, monopoly is more likely to invest in research and development leading to innovation and new products, than perfect competition. The

reason is because monopoly has greater ability and incentive as a result of being able to maintain economic profit in the long run.

Overall, it would appear that despite not achieving the efficiency criteria, monopoly is potentially more desirable than perfect competition with respect to costs and long term innovation. Imagine if there were hundreds of small firms supplying electricity or water to houses, their collective costs would be considerably more than those of a single supplier.

Part B: Macroeconomics

The higher and standard level syllabi are quite similar. Both emphasise the AD/AS model for analysis and questions requiring an application of this model to explain policy objectives and to evaluate policy options. Questions will typically relate to inflation, unemployment and growth and the policy alternatives with respect to fiscal, monetary and supply side policies.

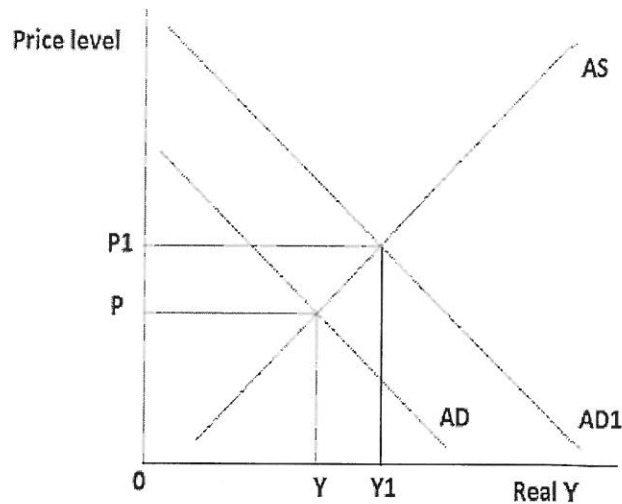
Question 5

a) Explain the possible causes of inflation in an economy. (10marks)

b) Evaluate the relative effectiveness of the policies that can be used to control inflation. (15 marks)

5a) Inflation is defined as a persistent or continuous increase in prices over time. It is expressed as a % change and is usually measured by some expenditure index such as the Consumer Price Index (CPI). There are two main causes of inflation in an economy, which are both analysed within the framework of the AD/AS model of macroeconomic equilibrium. The most usual cause of inflation is the result of excess demand in the economy and is referred to as demand – pull inflation. If Aggregate Demand (AD) is increasing faster than Aggregate Supply (AS) the result will be rising prices as shown in diagram 1.

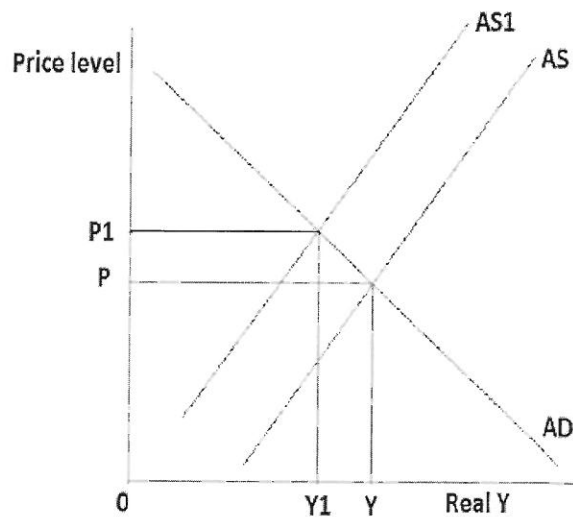
Diagram 1



AD is made up of Consumption (C), Investment (I), Government Spending (G) and Exports (X) Imports (M). Any increase in one or more of these components will shift AD to the right to AD1 and as a result the price level rises from P to P1. At the same time real income also rises to Y1. Rising demand has the effect of pulling prices up and the extent of the price increase will be determined by the slope of AS. The steeper the AS, the greater the price increase.

The second major type of inflation is described as cost-push. This occurs when costs of production in the economy are rising thus causing firms to cut back their output. This is represented by the shift in AS to the left in diagram 2.

Diagram 2

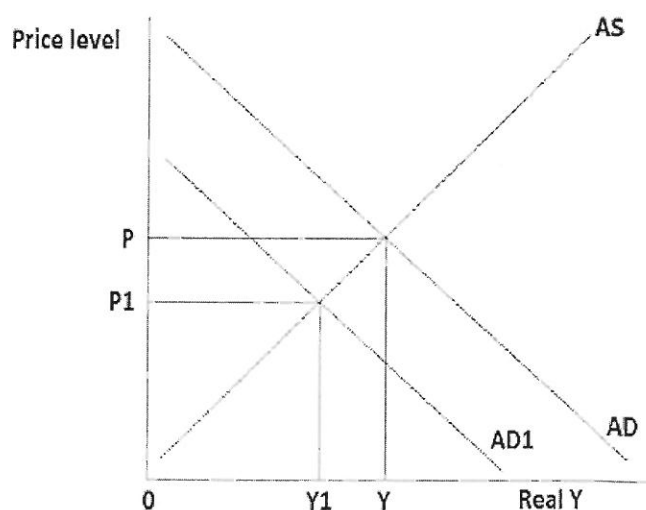


The shift in AS to AS1 causes prices to rise from P to P1 thus creating inflationary pressure, while at the same time real income falls to Y1. Costs of production can increase as a result of rising costs of imported oil or raw materials, increases in wages above productivity or even an increase in expenditure taxes such as VAT.

In addition to these two main causes of inflation there is a dynamic element to the inflationary process which is generated by expectations of inflation. If people begin to expect a certain rate of inflation, they will adjust their behaviour to this expected rate so that the actual rate will reflect the expectation.

5b) Control of inflation is a major objective of government policy and many countries have a specific target rate. The UK has a target of 2% and the Central Bank is responsible for ensuring that inflation is kept within this target. It does this through its implementation of monetary policy which involves changes in the rate of interest in order to influence spending in the economy. Monetary policy together with fiscal policy constitutes the policy options which are known as demand side policies. Such policies are specifically targeted at relieving demand pull pressures and aim to have a deflationary or contractionary effect on AD. The appropriate monetary policy is to increase interest rates in the hope of reducing consumer spending and thus relieving demand pressures. Consumption is thought to be interest sensitive because a certain proportion of spending is financed by credit such as loans to buy houses or consumer durables like cars. The higher the rate of interest charged for these loans, the lower the demand for them. By raising interest rates, the Central Bank hopes to shift AD to the left. A similar result can be achieved by a contractionary fiscal policy which involves reducing the level of Government spending relative to Taxation. The effects are shown in diagram 3.

Diagram 3



By shifting AD to the left to AD1, inflationary pressure is reduced as the price level falls to P1 but at the same time the level of output and real income in the economy falls to Y1. This means that unemployment will increase and this is a definite disadvantage of deflationary demand management. In addition, increasing interest rates might have some further negative effects. Investment spending by firms is also inversely related to interest rates and so any increase in interest rates will reduce Investment and this will further reduce AD. Since investment constitutes spending on capital, which is a factor of production, the reduction in investment will cause the long run AS to shift to the left as well.

Higher interest rates will also attract an inflow of short term financial capital, known as 'hot'

money and this will cause the exchange rate of the currency to appreciate. As a result, exports will become more expensive and less competitive while imports will become cheaper and more competitive. Depending on the price elasticity of demand for exports and imports, this could lead to a current account deficit together with a loss of output and employment in the export industries. One potential advantage however, for a country that imports oil and raw materials, is that the lower import prices will reduce production costs and this could stimulate the supply side of the economy.

Deflationary demand side policies can be quite effective in controlling inflation, especially through higher interest rates, which reduce AD by reducing consumption and exports, while at the same time reducing import prices. There is a cost however, in the form of reduced output and employment, the possibility of reduced Investment, and a movement of the current account towards deficit. An alternative approach might be to try to stimulate the supply side of the economy through supply side policies. Any successful supply side policy that shifts the long run AS to the right would simultaneously reduce inflation and unemployment and would avoid the conflict of policy objectives encountered with demand side policies. The problem is that supply side policies take a relatively long time to be effective, and the measures necessary to make labour markets more flexible are unpopular with workers and can lead to social unrest.

Effective control of inflation is possible, but not without a cost.

Question 6

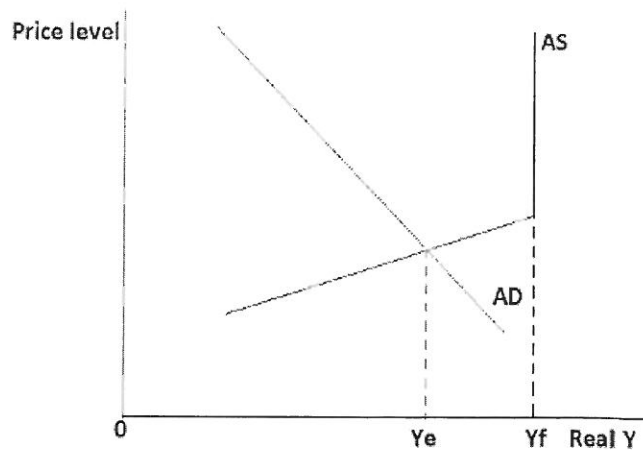
a) Explain why unemployment in the EU has increased over the past few years. (10 Marks)

b) Discuss the view that unemployment can be reduced more effectively with supply-side policies than with demand-side policies. (15 Marks)

6a) Unemployment is defined as the proportion of the working population that is able and willing to work, but cannot find a suitable job. It is expressed as a % rate and has recently risen to above 10% as an average for the EU, with Spain and Greece facing rates of around 20%. There are several types or causes of unemployment, but the two most likely to be responsible for the recent increase in the EU are structural and cyclical or demand deficient. (The others are frictional, seasonal and real wage). Structural unemployment occurs when the demand for a particular type of labour falls as a result of foreign competition or replacement by another factor of production such as capital. It is likely that the rapid growth in industrial production in China, India and Brazil has contributed to structural unemployment in Europe especially in traditional industries such as textiles and electrical appliances. Structural unemployment will persist as a result of the mismatch between available jobs and available workers. This mismatch reflects relative occupational and geographical immobility of labour which refers to the inability of workers to move to other areas and to change jobs.

Most of the recent rise in unemployment however, is likely to be the result of the prolonged recession that has affected Europe since 2008. A recession occurs when there is negative growth for two or more consecutive quarters and is associated with the downturn and trough of the trade cycle. This phase of the trade cycle is characterised by falling AD and a growing deflationary gap, as shown in diagram 1.

Diagram 1



In diagram 1, Y_f represents the potential or full employment output of the economy and Y_e the current equilibrium level of real output measured by GDP. This presents an output and employment gap which is the result of insufficient AD to generate the full employment output of the economy. This type of unemployment is referred to as cyclical or demand deficient.

Although some European countries that rely heavily on tourism, such as Portugal, Spain and Greece, might be experiencing seasonal unemployment, the major causes of European unemployment in recent years are structural and cyclical

6b) Reducing unemployment is a major objective of government policy because of the considerable economic and social costs that it creates. Governments generally have two main sets of policy options which can be used to achieve their macroeconomic objective: demand-side and supply-side policies. Demand-side policies would aim to increase AD and could take the form of expansionary fiscal or monetary policy. A fiscal expansion would involve an increase in Government spending relative to taxation, while appropriate monetary policy would involve a decrease in interest rates aimed at stimulating consumption and investment spending. The effectiveness of such policies in reducing unemployment would depend primarily upon the type of unemployment that the country is facing, as well as the ability of the policies to achieve a sustainable increase in real output that does not compromise other objectives. Given that demand-side policies aim to increase AD, they would only be appropriate for demand deficient or cyclical unemployment.

The other types of unemployment are not related to insufficient demand and could not, therefore, be effectively tackled with demand-side policies. Even in the case of demand deficient unemployment, demand-side policies might not be effective in the long run. The EU countries which are facing the highest unemployment rates are also facing huge problems of public debt. This means that they have to reduce their budget deficits and, therefore, cannot apply expansionary fiscal policies to boost demand. For countries that have such debt related problems, fiscal expansion is not sustainable. The alternative of expansionary monetary policy, through decreased interest rates, is not an option for Eurozone countries, as interest rates are applied collectively by the European Central Bank. Even if countries can set interest rates independently, like the UK or the USA, there is a severe limit on the effectiveness of monetary policy because when rates are close to zero, as they currently are, there is no scope for further reductions. Japan has had zero interest rates for years and has still

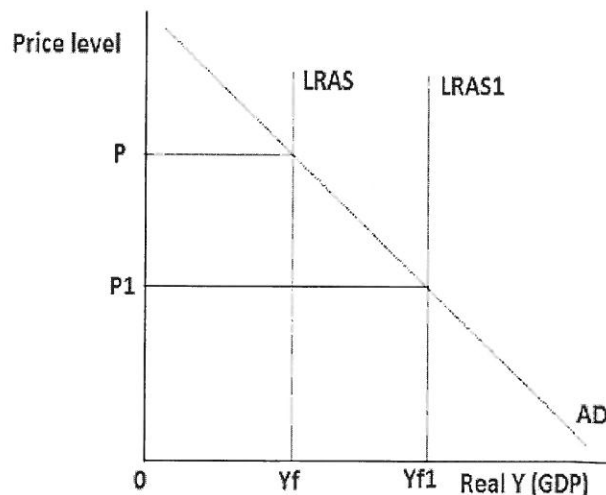
not managed to break out of its deflation cycle.

Despite these practical problems, some economists would argue that fiscal expansions are ineffective in the long run because they will simply cause inflation to rise and thus undermine business confidence. In addition, the financing of the deficit implied by the fiscal expansion could lead to crowding out as a result of higher borrowing costs.

Overall, it would seem that demand side policies have serious limitations as a long term cure for the various types of unemployment and are potentially only appropriate for demand deficient unemployment.

In the light of this, supply-side policies could provide a more sustainable long run solution. Supply-side policies aim to stimulate the output of firms by making markets more competitive and flexible and by providing incentives through tax breaks for greater output, effort and productivity. Labour market reforms, in particular, are potentially able to reduce types of unemployment associated with labour market rigidities. Reducing minimum wages, unemployment benefits and the power of trade unions will provide more job incentives and encourage firms to hire more workers. More part time work and flexible working hours will also increase employment opportunities. Increased information relating to job vacancies could reduce frictional unemployment and training schemes could reduce structural unemployment. If successful, supply-side policies will shift the long run AS to the right as shown in diagram 2.

Diagram 2



As a result of shifting LRAS to LRAS1, the potential output of the economy is increased to YF while at the same time reducing the price level. This reduction in inflation will increase the competitiveness of the economy and inspire business confidence which in turn will stimulate greater output and employment.

The problem with supply-side policies is that they are unpopular with workers and can create strong opposition through strikes and social conflict, but if these problems can be overcome, they provide a more sustainable solution to unemployment than demand-side policies.

Question 7

a) Explain why real GDP per capita is an inadequate means of comparing living standards between countries. (10 marks)

b) To what extent should governments pursue economic growth as their main objective? (15 marks)

7a) Real GDP per capita is the total value of all goods and services produced in an economy during a year, divided by the population and adjusted for inflation. It is the same as National Income per head and reflects the average income in an economy. Income is a major determinant of a person's standard of living because it determines the amount of goods and services that can be consumed, but it is not the only determinant. A person's standard of living is also affected by various measures of social welfare such as health and education as well as political freedom, access to employment, empowerment, quality of environment and equality of opportunity. That is why living standards are no longer compared exclusively by real income per head, but by some wider measure such as the Human Development Index (HDI).

At best, real income can measure economic welfare and reflect changes in economic growth, but HDI can measure economic and social welfare by including life expectancy and adult literacy and is therefore a more accurate measure of development.

Even as a measure of economic welfare, real income has a number of limitations. In many countries, income is distributed very unequally so that the income per head overstates the income of the average person. This is especially true of less developed countries (LDC's). In addition, it is difficult to measure income accurately as well as identifying all of the economic transactions that take place. Many transactions are unrecorded because they are not declared in order to avoid taxes or because they are illegal. Such transactions account for the hidden economy which varies greatly between countries and tends to be highest in LDC's. In many countries there are many self-provided services which do not receive payment and are therefore unrecorded. For example, in a typical village in Kenya, housing, clothing, food and entertainment will mostly be self-provided, whereas in a European city, all of these equivalents will be recorded in the national income.

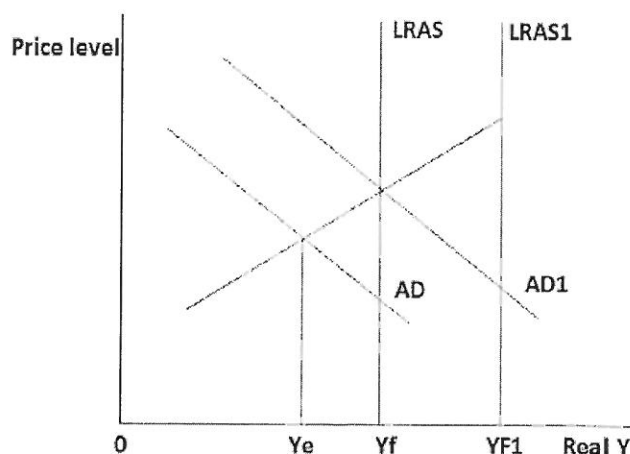
The composition of output, climate differences and cultural traditions can also make comparisons based on income inadequate.

Finally, it is necessary to consider the value of income with respect to what it can buy. Comparisons can only be made by converting a country's national income to a common currency like the dollar, but because prices differ it is likely that one dollar will buy more basic goods in a LDC than in a developed country.

For all the above reasons, real GDP per head is an inadequate means of comparing living standards between countries.

7b) Economic growth is measured by changes in real GDP per head over time. Economists usually distinguish between two types, actual and potential growth. Actual covers any increase in GDP while potential requires an increase in the productive capacity of the economy. The difference is shown in diagram 1.

Diagram 1



The movement from YE to YF represents actual growth which is achieved by using more of the available resources of the economy. Potential growth is shown by the shift in the LRAS to LRAS1 as a result of an increase in the quantity or quality of resources. Actual growth may be achieved by increasing AD, but potential growth requires an increase in AS. Potential growth is what brings the more permanent improvements in economic welfare and it is undeniable that sustained growth has contributed to significant advances in quality of life and living standards in developed and developing countries. Countries that have experienced rapid growth recently include China, India and Brazil and in all these there has been a marked reduction in poverty and improvement in average living standards. In already developed countries, like the USA and EU, past growth has contributed to very high living standards with new and improved goods and services, increased life expectancy and better education.

Unsurprisingly, these benefits of growth have made it a major objective of governments, but whether it should be the main objective is questionable.

Once a country has achieved its basic requirements of universal well-being with no absolute poverty and high levels of health care and education, is it still necessary to pursue even further growth? The answer to this question requires a consideration of the opportunity cost of growth within the context of sustainability.

Growth is only worthwhile if it is sustainable. This means that it does not use up non-renewable resources and does not impose permanent damage on the environment.

The current problem of global warming and climate change is a result of uncontrolled growth, and there is much evidence to suggest that growth in China is adding a huge burden to the environment and leading to excessive, health threatening pollution.

As discussed in part a) growth does not always mean improved living standards for the average person. China, India and Brazil all have many more millionaires than before, but they have not eradicated poverty and inequality.

Growth in developed countries has also fostered the expansion of consumption of harmful goods such as drugs, alcohol and fattening foods. As a result, some developed countries are experiencing a decline in life expectancy. If growth is not shared equally within and between countries, it can lead to resentment and social conflict. Governments need to look at the distribution of wealth and not just its

creation.

For LDC's, growth is necessary for development but it must not be at the expense of quality of life and sustainability. For developed countries, there is no great urgency for unregulated growth. More consideration needs to be given to quality of life and, therefore, a balance of objectives is advisable. Unemployment and inflation are serious problems and should not be sacrificed for growth.

Growth needs to be shared more evenly within and between countries and should not be pursued at the expense of policies which genuinely improve the quality of life of the average person. It should not be given top priority as a policy objective.

Question 8

a) Explain why the effects of demand-side policies are mainly influenced by Aggregate Supply. (10 marks)

b) Discuss the view that it is misleading to try and distinguish between demand-side and supply-side policies. (15 marks)

8a) Demand-side policies aim to influence the level of Aggregate Demand (AD) in the economy in order to achieve the macroeconomic policy objectives of control of inflation, reduction of unemployment, economic growth and a balanced current account. There are two demand-side policies; fiscal and monetary. Fiscal policy involves changes in government spending relative to taxation and monetary policy involves changes in interest rates. The policy direction can be expansionary or contractionary, depending on the objective. If the objective is to reduce unemployment, then an expansionary policy which boosts AD will be appropriate, but if the objective is to control inflation, the opposite policy aimed at reducing AD will be appropriate.

Assuming that the government wants to reduce unemployment because of low demand associated with a recession, it will try to boost demand by increasing government spending relative to taxation and reducing interest rates. This combination of expansionary fiscal and monetary policy will shift AD to the right and as a result, there will be an increase in real income and in the price level. The exact impact on income and prices, however, will depend on the slope of Aggregate Supply (AS). This can be seen in diagram 1.

Diagram 1

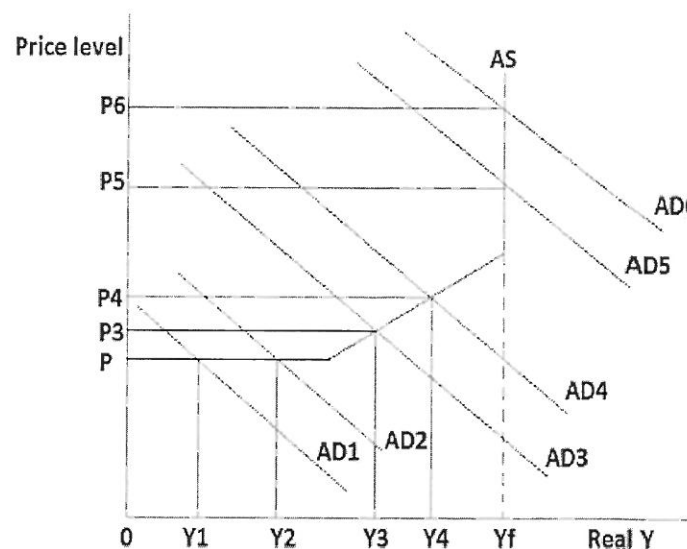


Diagram 1 shows three sections of AS, horizontal, upward sloping and vertical. AD has shifted on each section and it is clear that the shift from AD1 to AD2 has only income but no price effect. The shift from AD3 to AD4 has both income and price effects, and the shift from AD5 to AD6 has exclusively price effects. From this, it is possible to conclude that the effects of any demand-side policy do depend on the slope of AS: the steeper the AS the greater the price effects and the flatter the AS the greater the income effects.

At low levels of income it would be reasonable to assume that firms would be willing to increase output without raising prices. However, as the full employment output is approached, bottlenecks will develop with shortages of some factors of production so that increased output would require an increase in prices. When the economy is operating at its capacity output at Y_f , it is not possible to increase output further, so that any increase in AD will only cause prices to rise.

8b) Demand-side policies as discussed in part a) aim to influence AD, while supply-side policies specifically aim to stimulate the level of AS in the economy. To achieve this, supply-side policies hope to collectively induce firms to increase their output. Such policies attempt to make it easier for firms to operate and to enhance free competition in the market. Deregulation and privatisation are examples of this approach because they encourage the private sector to expand. In addition, an important source of supply-side stimulus is the liberalisation of the labour market which will make the supply of labour more responsive and allow firms to hire and fire more easily. Such policies include removing minimum wages, reducing the power of trade unions and cutting unemployment benefits so as to give greater incentives for workers to participate in the labour market and for firms to hire workers. Incentives can also be provided by changing the tax structure from progressive direct taxes that are thought to have a negative effect on incentives to regressive indirect taxes that have no impact on incentives. Finally, policies that increase labour mobility, such as training of workers, together with policies that would encourage research and development leading to investment and innovation, are regarded as supply-side policies.

On the surface, these policies appear to be distinct from the fiscal and monetary policies discussed in part a), but a closer examination will show that the dividing line between demand-side

and supply-side policies is not so easy to draw.

Changes in taxes may have a supply-side effect through their effect on incentives, but they are, by definition, an aspect of fiscal policy which is a demand-side policy.

A cut in income tax is likely to lead to an increase in output, but is this the result of the demand-side or the supply-side effect?

A less obvious example is a cut in interest rates. This is clearly a demand side policy as it is likely to stimulate consumption and investment spending which are both components of AD. If it does, however, lead to an increase in investment, then the additional capital will represent an increase in the quantity of factors of production so that the productive capacity of the economy will increase and the long run AS will shift to the right. Although cutting interest rates is a demand-side policy, it can also have a supply-side effect through investment.

Government spending on training or on research and development is by definition a demand-side policy, but will have supply-side effects as well. Similarly, a government subsidy to encourage small firms would be both a demand and a supply-side policy.

These examples clearly show that it is difficult to differentiate between supply and demand-side policies and it is therefore sometimes misleading to attempt such a distinction.

Paper 2

Part 1: *General points*

Question a) (i) and (ii) normally require a definition or identification. Keep your answer brief. One sentence is normally enough for a definition, and you should never need more than two.

Question b) and c) usually require an explanation using a diagram. You will receive 2 marks for an accurate, clear and fully labelled diagram, and a further 2 marks for a clear explanation and description of what the diagram shows. You should also try to provide a link between the event given and the diagram that shows the effect. Again do not spend too much time on your explanation.

Question d) requires three distinct tasks: 1- use information from the text/data, 2- use knowledge of economics and 3- evaluate or discuss.

If you do all three well you can get full marks. To ensure this, begin with references from the text, 2 minimum, 3-4 better. Use the paragraph numbers to identify your references. It is acceptable to use quotes from the text but paraphrasing the text is better. Knowledge of economics can best be shown by applying some theory e.g. with a diagram.

Evaluation or discussion requires consideration of costs/benefits, short run/long run, effects on different groups and relative significance of arguments.

You should expect some questions to be related to other parts of the syllabus and not exclusively international economics or development economics. For example you could be asked to link the exchange rate to inflation and to use AD/AS diagrams.

Part 2: *Questions and Answers*

Section A. International Economics

Question 1. Study the extract below and answer the questions that follow.

US Congressman claims Chinese currency is still undervalued

(1) Despite the fact that China's **current account surplus** has fallen to below 3% of GDP, there are still complaints from the leader of the Democratic Trade Policy Group that China is giving its exports an artificial advantage by keeping the exchange rate of its currency, the Yuan, undervalued. He accused China of **dumping** and claimed that by manipulating its currency China is effectively subsidising its exports.

(2) A Chinese trade spokesman replied that the US claims were exaggerated and pointed out that America was trying to blame others for its own internal and external imbalances and advised Congress to pursue domestic policies to redress these imbalances. He said that the Yuan has appreciated by 6% over the past year and that the US dollar was overvalued because of the continued weakness of the recovery in Europe combined with the European debt crisis which has depressed the

value of the Euro.

(3) A senior economist at the Economic Forum think- tank said that China's surplus looks set to fall further so its exchange rate is fairly close to true market value. He warned that China's internal imbalance was of greater concern with growth being driven by investment and exports rather than by domestic consumption. Without a healthy domestic demand stimulus China's economy is too exposed to the strength of the global recovery. If the EU recovery falters and the US fails to sustain its growth China could face rising excess capacity and even a deficit on its current account.

(4) A spokesman for a leading London investment bank said that an increase in oil and commodity prices could derail China's growth and add to its inflation problems. This could trigger labour unrest and demands for higher wages and cause an inflationary spiral to develop that would erode China's competitiveness in world markets.

i) (i) Define the term *current account surplus* indicated in bold in the text (*paragraph 1*)

(2 marks)

(ii) Define the term *dumping* indicated in bold in the text (*paragraph 1*)

(2 marks)

a) Using an appropriate diagram, explain how China might keep "the exchange rate of its currency, the Yuan, undervalued". (*paragraph 1*)

(4 marks)

b) Using an AD/AS diagram, explain why "an increase in oil and commodity prices" could contribute to inflation. (*paragraph 4*)

(4 marks)

c) Using information from the text/data and your knowledge of economics, discuss the consequences of China allowing the value of the Yuan to appreciate.

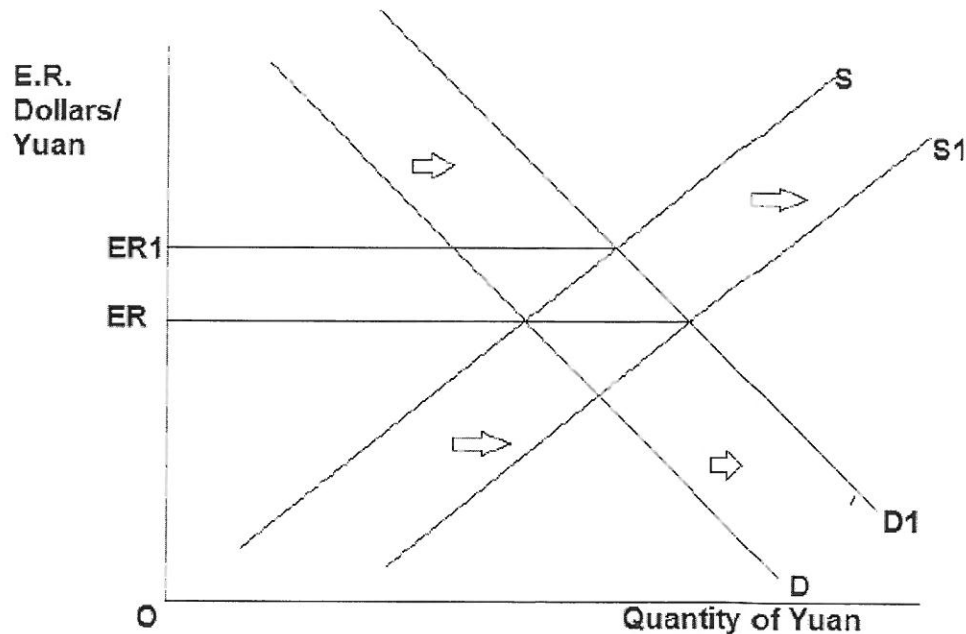
(8 marks)

Answer:

- a) (i) Current account surplus is when the value of exports of goods and services is greater than the value of imports of goods and services.
(ii) Dumping occurs when a country sells products in a foreign market at prices below cost.

b) The Chinese authorities can keep the exchange rate undervalued by intervening in the foreign exchange market as illustrated in diagram 1.

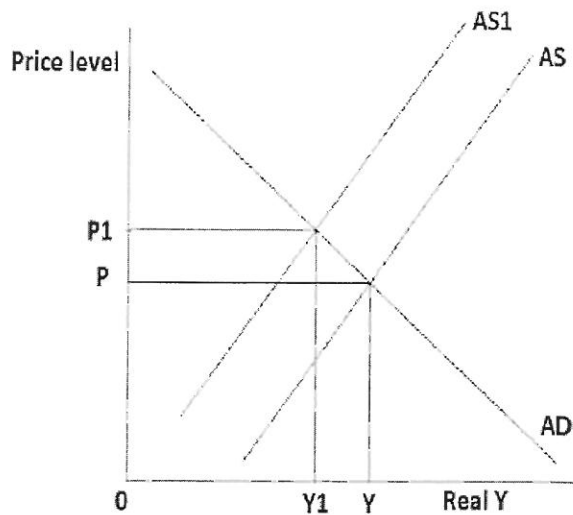
Diagram 1



Because of China's surplus there is market pressure for the exchange rate to appreciate to ER1, indicated by the shift in demand for the Yuan to D1 from D. This reflects the increased demand for exports. To counteract this, the Chinese Central Bank will have to intervene in the market and sell Yuan, which is represented by the shift in supply to the right from S to S1. As a result the Yuan is kept at exchange rate ER.

c) An increase in oil and commodity prices would have the effect of increasing the costs of production for many Chinese firms. The effect of this is to shift the short run AS to the left as shown in diagram 2.

Diagram 2



The shift in AS to AS1 causes the price level to rise from OP to OP1 and this will generate cost push inflationary pressure.

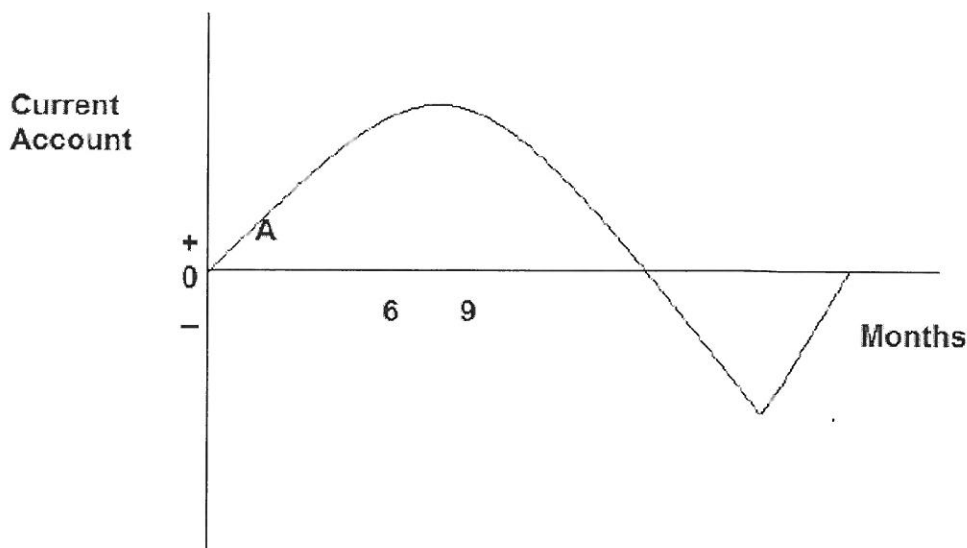
d) According to paragraph 1 the undervalued currency gives China an unfair competitive advantage. Therefore, allowing the Yuan to appreciate would make China's exports less competitive and imports more competitive. The views expressed in paragraph 2, however, imply that the Chinese currency is close to its market value and would not appreciate significantly, even if left to market forces. The problem seems to be more that the dollar is overvalued. This view is further supported in paragraph 3.

Paragraph 4 also identifies the problem of inflation that China appears to be facing as a result of rising oil and commodity prices which as shown in part c) above could stimulate cost push inflation. This suggests that allowing the currency to appreciate could actually be good for China because it would help to bring down the cost of imported raw materials and help to keep down prices. In the long run, the reduction in import prices and production costs could neutralise the effect of higher export prices as a result of the exchange rate appreciation. Furthermore, exposing Chinese exporters to more competition as the exchange rate appreciates and makes exports more expensive, will force them to increase productivity, which is essential for sustained long term growth.

The effect of the appreciation on the current account surplus will depend on the relative elasticities of demand for China's exports and imports. If the Marshall-Lerner (M/L) condition is satisfied and combined elasticity of demand for exports and imports is >1 , then the surplus will decrease, but if the condition is not satisfied, the surplus will increase.

In the short run, the response of exports and imports to exchange rate changes is not very quick and the M/L condition is not easily met, in which case, the surplus will initially get larger. After about 6-9 months, however, it is expected that trade flows become more elastic so that the M/L condition will be met in the long run. This is shown in diagram 3 which represents an inverted 'J' curve.

Diagram 3



In diagram 3, it is assumed that the current account goes into surplus at point A. As a result, the exchange rate will appreciate and this should restore current account balance because exports become more expensive and imports become less expensive. However, in the short run, the (M/L) condition is not satisfied so the surplus becomes larger. In the long run, the condition will be met and the current account will eventually adjust and restore equilibrium.

In view of the dissatisfaction expressed by the US government in paragraph 1, allowing the currency to appreciate would alleviate these criticisms of dumping and could prevent the US from imposing protectionist policies which would be more damaging to Chinese exporters. This act of goodwill would promote good trade relations which would benefit both countries in the long run. The cost to China of higher export prices would probably be matched by the benefit of lower import prices and production costs in the long run, so that, overall, the decision to allow the currency to appreciate would probably be better for China than keeping the currency undervalued.

Question 2. *Study the extract below and answer the questions that follow.*

International institutions warn of growing trade protection in developed countries

(1) The World Trade Organisation (WTO) and the International Monetary Fund (IMF) have warned that the deepening global recession might lead some countries to abandon their free trade commitments and slide into trade protection. Even though the world's largest economies had agreed to avoid the mistakes of the Great Depression, when protectionism clearly made the situation worse, there was growing concern that trade wars were likely to break out.

(2) Amid claims of unfair trade through subsidised exports, both the USA and the EU are planning to introduce **tariffs** on a range of products imported from Asian countries. These products include frozen sea food from Vietnam and Thailand, tyres and car radios from China and car accessories from Malaysia. Apart from tariffs, the EU is imposing non-tariff barriers on certain foodstuffs imported from Africa and India through the introduction of stricter rules for health and hygiene.

(3) A leading economist at the Free Trade Association claimed that the proposed measures would be counter-productive and would only spark retaliation from the Asian countries with the consequence that trade volumes would fall. A trade war would simply plunge the global economy into a deeper **recession** and there would be no winners.

(4) Although some EU and American manufacturers support the measures, a majority are strongly opposed because the tariffs will raise their production costs and reduce their competitiveness. Consumer groups also oppose the proposals for trade restrictions for fear that they will lead to higher retail prices.

(5) It is estimated that a 10% increase in tariffs would result in a cost of \$30 billion to the global economy in lost production and trade.

i) (i) Define the term *tariff* indicated in bold in the text. (*paragraph 2*)

(2 marks)

(ii) Define the term *recession* indicated in bold in the text. (*paragraph 3*)

(2 marks)

b) Using an appropriate diagram, explain why export subsidies are an example of unfair trade. (*paragraph 2*)

(4 marks)

c) Using an appropriate diagram, explain why “a trade war would simply plunge the global economy into a deeper recession”. (*paragraph 3*)

(4 marks)

d) Using information from the text and your knowledge of economics, evaluate the consequences of trade protection for the global economy.

(8 marks)

Answer:

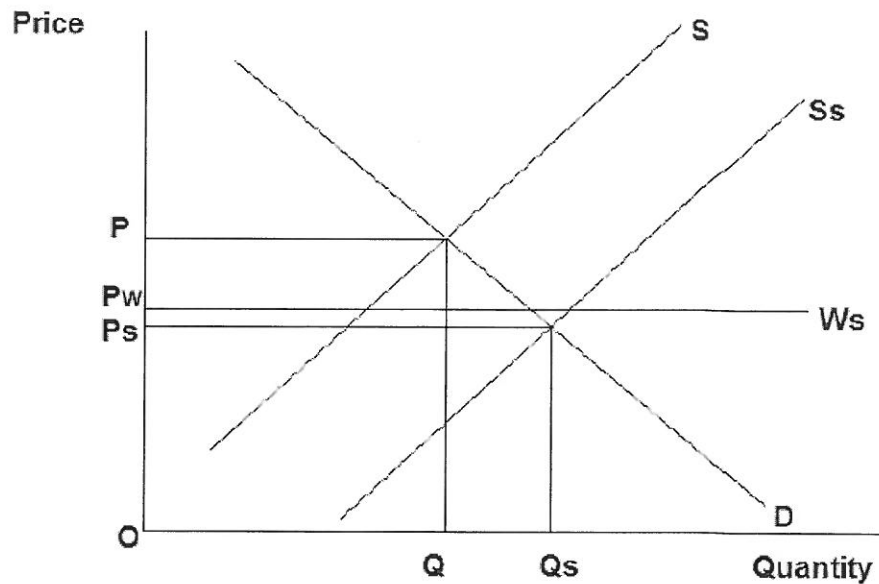
i) (i) A tariff is a tax on imports which raises their price and reduces quantity demanded.

(ii) Recession is associated with the downturn of the trade cycle with at least two consecutive quarters of negative growth.

b) Export subsidies give the exporters an unfair advantage because the subsidy artificially reduces their costs of production. The effect is shown in diagram 1 where, as a result of the subsidy, the supply shifts to the right to S1 and the price is now lower at Ps. Whereas before the subsidy the

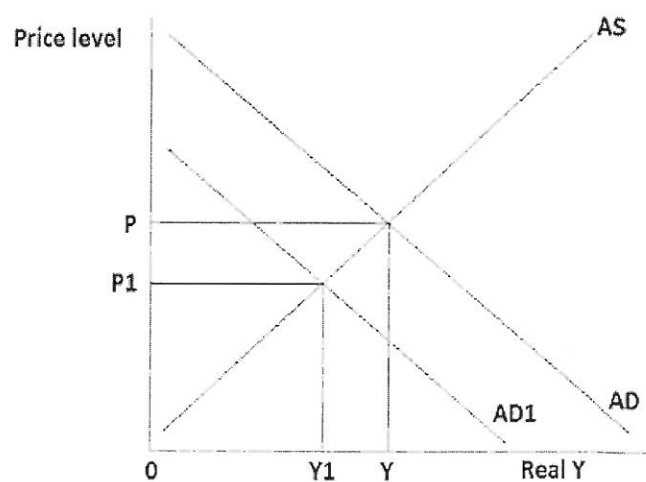
export price was above the world price, after the subsidy it falls below the world price P_w and the exports may achieve an artificial comparative advantage.

Diagram 1



c) A trade war would result in increased restrictions on trade so that countries would be importing less and exporting less. This would lead to a reduction in the $(X-M)$ component of Aggregate Demand (AD) and as a result AD would shift to the left to AD_1 as shown in Diagram 2.

Diagram 2



The decrease in AD to AD_1 will lead to a fall in real output, income and employment to Y_1 .

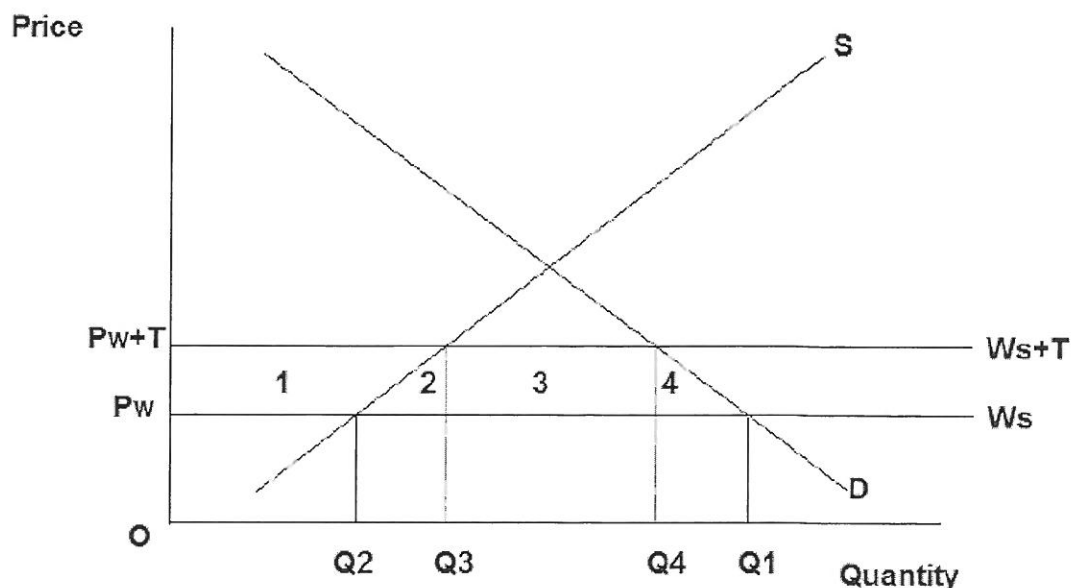
This could slow down growth and deepen the world recession because as income falls in one country, demand for imports falls and this amounts to a fall in exports of other countries thus creating a deflationary spiral.

d) Increased trade protection would have a major impact on the global economy. Several important effects are identified in the text. Paragraph 1 identifies the concerns of the WTO which is an international institution that promotes free trade. Together with the IMF, it fears that trade wars could ensue and the world economy could suffer a global recession similar to what happened in the depression of the 1930's. This fear is also expressed in paragraph 2 and it would seem that the negative opinion of trade protection is quite widely held. Paragraph 5 identifies a specific cost associated with lost output and it is likely that the poorest countries would be worst affected by a global slowdown. Potential stakeholders, such as producers, who might gain from trade protection, are only mentioned in paragraph 4, but, even then, it is claimed that a majority of manufacturers oppose tariffs because they would lead to an increase in production costs. Only producers who are in direct competition with cheap imports are likely to favour trade protection.

Most of the products mentioned as candidates for protection in paragraph 3 are used to produce other goods such as cars so that tariffs would simply increase production costs for car manufacturers.

Overall, the text is heavily weighted in favour of free trade and an examination of the effects of tariffs would help to evaluate this view. Diagram 3 shows the effects of a tariff imposed on a good that could be imported at the world price of P_w .

Diagram 3



The tariff increases the world price to $P_w + T$ and as a result the volume of imports falls from $Q_1 - Q_2$ to $Q_4 - Q_3$. This means that foreign producers are selling less and so world output and consumption falls, thus supporting the claims made in the text. In addition, the domestic consumers will lose a part of their consumer surplus equal to the combined areas $1+2+3+4$, which supports the

claim in paragraph 4 that consumers are against trade protection. Furthermore, tariffs and non-tariff barriers could lead to retaliation as mentioned in paragraph 3 and this could cause a dangerous breakdown in international trade relations.

Overall, it would appear that the consequences of increased trade protection would be damaging for the global economy in the long run and the analysis of the tariff diagram supports the views expressed in the text. As with the 1930's, protectionist policies would be a major threat to the success of the global recovery.

Question 3. Study the extract below and answer the questions that follow.

US trade deficit better than it seems

(1) Many commentators have argued that the large US trade deficit is a sign that the American economy is losing its **comparative advantage** in manufacturing to lower cost producers in the, so called, BRIC economies. Even in the high tech sector, countries like South Korea and China are gaining ground and seriously challenging America's dominant position, strengthening calls for increased trade protection.

(2) Closer examination of actual trade flows, however, reveal that many goods that appear as US imports are actually exports. The iPad is a good example of this. The total production cost of each iPad sold in America is roughly \$275 and each one adds this amount to the recorded US deficit with China, which is where the iPad is manufactured. The total contribution to this amount by work carried out in China is about \$10, which means that of the iPad import bill of \$4 billion in 2011 only \$150 million reflects actual value added by China. Approximately half the total value goes, as profit, to the American owners, suppliers, designers and distributors. The same applies to many similar products which are US brands manufactured abroad.

(3) A leading economist at Chicago University has estimated that the real import content of the US deficit with China is about 50 % of what the official statistics show. The main implication of this is that a revaluation of the Chinese currency would have a limited effect on the final import price of American brands imported from China. A 10% increase in the Yuan would add 0.5% to the import price of an iPad.

(4) If the US wants to reduce its trade deficit with China, it needs to look beyond the exchange rate of the Chinese currency. Expenditure reducing policies are likely to be more effective than **expenditure switching policies**, but their effects on the US recovery means that the administration is reluctant to pursue deflationary policies.

i) (i) Define the term *comparative advantage* indicated in bold in the text. (*paragraph 1*)

(2 marks)

(ii) Identify **two** expenditure switching policies. (*paragraph 4*)

(2 marks)

b) Use an appropriate diagram to explain the relevance of comparative advantage to international trade. (*paragraph 1*)

(4 marks)

c) Use an appropriate diagram to show the effect of an increase in the US trade deficit on domestic output.

(4 marks)

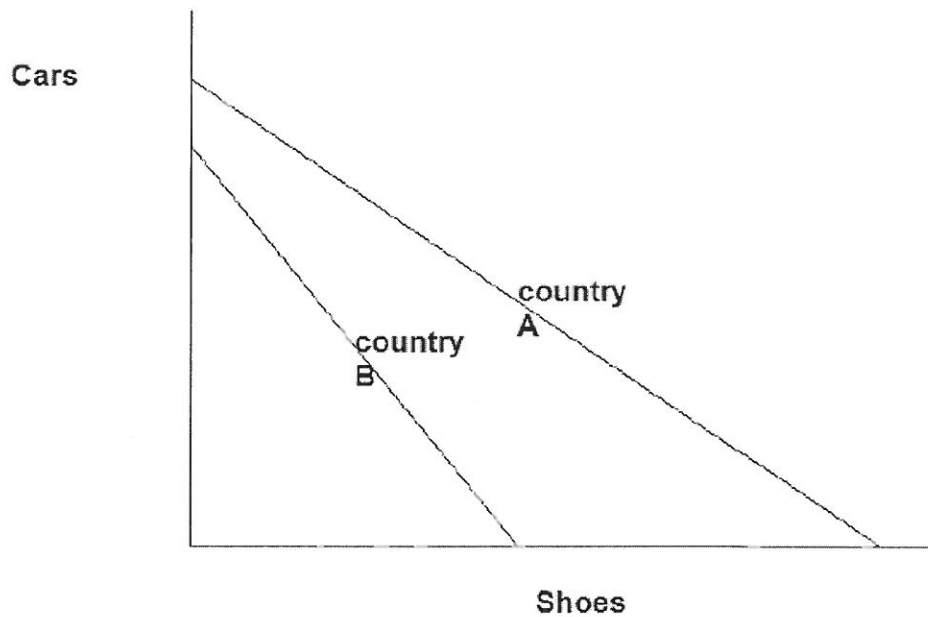
d) Using information from the text and your knowledge of economics, evaluate the relative effectiveness of expenditure reducing and expenditure switching policies.

(8 marks)

Answer:

- 1) (i) Comparative advantage in the production of a good means that the country can produce it at a lower opportunity cost than another country.
 - (ii) Expenditure switching policies aim to switch spending from imports to domestic production and to encourage exports, as well. This could be achieved by depreciating the exchange rate or by putting tariffs on imports.
- b) In the following diagram 1 it is assumed that two countries A and B can produce either shoes or cars as indicated by the linear production possibility frontiers (PPF).

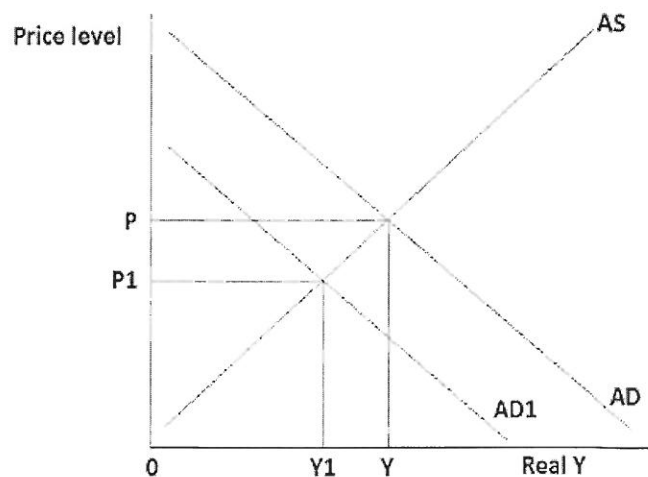
Diagram 1



Even though country A is more efficient at producing both goods, the different slope of each PPF shows that there is a comparative advantage present because the slope of the PPF illustrates the opportunity cost. Country A has a lower opportunity cost of producing shoes while country B faces a lower opportunity cost for producing cars. This means that A should specialise in shoes and B in cars and trade with each other.

c) An increase in the US trade deficit means that the value of net exports falls and since this is a component of AD, and other things being equal, there will be a decrease in the US AD as shown in diagram 2.

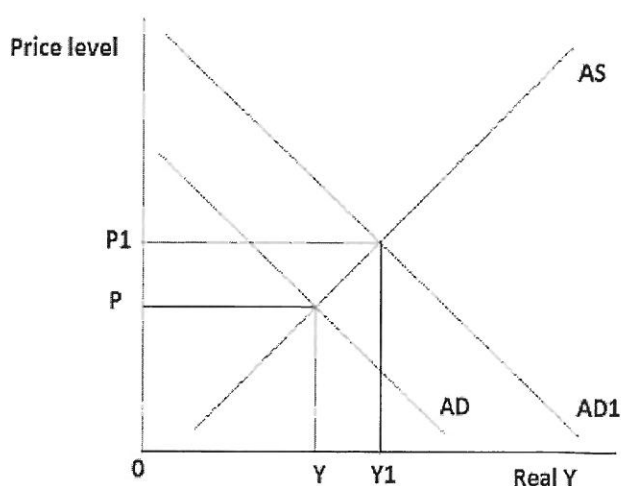
Diagram 2



The shift in AD to AD1 will cause the level of real income and output to fall from Y to Y1 and therefore domestic output will decrease.

d) According to paragraph 4, expenditure reducing policies are likely to be more effective in reducing the US deficit than expenditure switching policies which implies that the cause of the deficit is not so much a loss of comparative advantage as implied in paragraph 1, but more because of excess demand which is drawing in more imports. The US has a large budget deficit which means that AD is shifting to the right as shown in the following diagram 3.

Diagram 3



As AD shifts to AD1 there is an increase in real Income from Y to Y1 and this means that consumers will be spending more. Some of the increased domestic spending will be on imports and, as a result, the trade deficit will increase. If the budget deficit is reduced, then the trade deficit will also be reduced by reversing the process described above.

This is the logic behind expenditure reducing policies, but they will have undesirable consequences for other economic objectives. As stated in paragraph 4, “their effects on the US recovery means that the administration are reluctant to pursue deflationary policies”, any reduction in AD will slow down the recovery and cause unemployment to rise which will be unpopular and risky.

This is not to say that the alternative of expenditure switching is without problems. As implied in paragraph 2, the actual size of the US deficit is not easy to calculate because of the large domestic input in imported goods such as the I-Pad. It would appear that changes in the exchange rate would have a relatively small effect on trade values and so, such policies would be of little significance, in the long run, according to the calculations in paragraph 3.

Furthermore, changing the exchange rate will only work if the Marshall- Lerner condition is satisfied; this requires that the combined elasticity of demand for exports and imports is greater than 1. This is likely to be satisfied, in the long run but not in the short run, because trade volumes adjust quite slowly to price changes. Similarly, the trade protection mentioned in paragraph 1 is likely to have a negative effect in the long run that would outweigh any short term benefits as it could spark a trade war between the two countries.

Overall, it would seem that both policies have considerable disadvantages and it is difficult to choose between them, but in the case of the US deficit an expenditure reducing policy would probably be the most effective in the long run.

Section B. Development Economics

Question 4: Study the extract below and answer the questions that follow.

Biofuels threaten world food supplies

(1) The growing popularity of biofuels as a replacement for petrol (gas) in cars is likely to lead to food shortages and escalating food prices that could threaten the lives of millions of Africans who live in **absolute poverty**. Food crops such as corn and wheat are being used to manufacture biofuels such as ethanol, and agricultural land in Africa is increasingly being turned over to biofuel cultivation.

(2) A relief worker for Action Aid warned that the trend towards biofuels was threatening food security and predicted hardship and famine for several of the poorest Sub Saharan African countries over the next few years. Foreign companies are buying up agricultural land in these countries in order to grow crops for fuel instead of for food. Many local farmers do not have official property rights for the land that they cultivate and receive no compensation when their land is taken over.

(3) A Kenyan agricultural ministry spokesman said that the selling of land to **multinational companies** for the production of biofuels was likely to promote growth and development and that the manufacturing of biofuel would provide much needed diversification of the economy, as well as, providing a valuable export product. He also claimed that this enterprise would encourage further foreign direct investment (FDI) which was essential for the creation of jobs.

(4) Aid workers for Oxfam claim that the only beneficiaries of such FDI are the multinationals and the government officials who handle the land sales. Most of the jobs go to foreign staff and the few local workers employed are unskilled and paid very low wages. Farmers who were able to feed their families from the land have now been thrown off their land and are forced to look for jobs in the cities.

(5) The head of a leading multinational company in Kenya said that his company has created over 2000 local jobs and has provided important training for these workers. It has also invested in infrastructure projects and has financed several health centres and primary schools.

i) (i) Define the term *absolute poverty* indicated in bold in the text (*paragraph 1*)

(2 marks)

(ii) Define the term *multinational company* indicated in bold in the text (*paragraph 3*)

(2 marks)

b) Use an AD/AS diagram to show how biofuel production can promote growth (*paragraph 3*)

(4 marks)

c) Using an appropriate diagram explain why “The growing popularity of biofuels as a replacement for petrol (gas) in cars is likely to lead to...escalating food prices” (*paragraph 1*)

(4 marks)

d) Using information from the text and your knowledge of economics, evaluate the importance of FDI for a country like Kenya.

(8 marks)

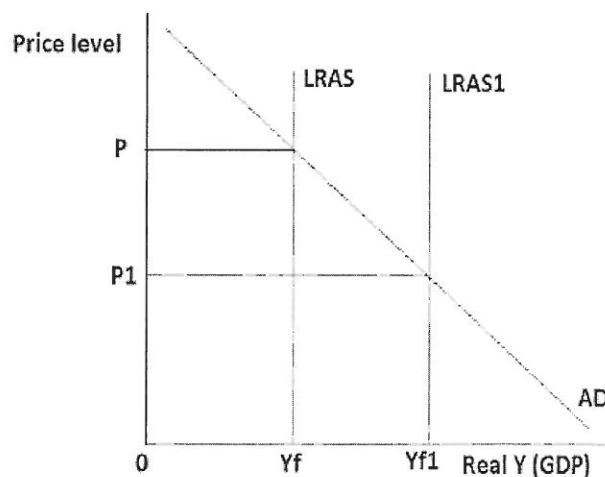
Answer:

i) (i) Absolute poverty is when an individual has to survive on an income of less than \$1.25 a day.

(ii) A multinational company, such as Starbucks, is one which operates production units in a number of countries.

b) Biofuel production could promote growth because it represents increased investment by a multinational company. Such investment will increase the factor of production capital which will lead to potential growth as shown in diagram 1.

Diagram 1

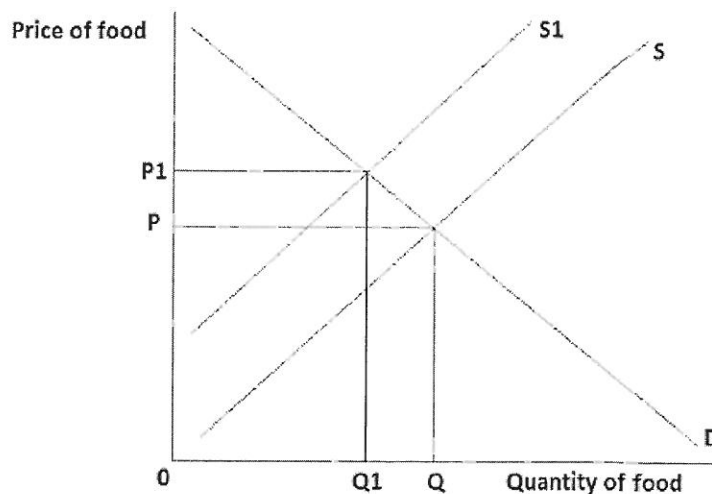


More capital, together with the production of a raw material such as ethanol, will cause the

LRAS to shift to the right to LRAS1 thus leading to potential growth.

c) The increased use of biofuels could lead to escalating food prices because food products and land used for food are being diverted to biofuel production. As shown in diagram 2, this will lead to a sharp decrease in the supply of food products from S to $S1$ and as a result food prices will increase from P to $P1$.

Diagram 2



d) FDI is a very controversial issue with respect to growth and development in LDC's because it has a mixture of potential benefits and costs. From the text, it would appear that Kenya stands to benefit from FDI in biofuel production, but not everyone is likely to share in the benefits. Paragraph 1 identifies the negative effect on the poorest families as a result of the increase in food prices, and paragraph 2 mentions the lack of property rights that allows the Government to take land without compensation and sell it to the MNC's. When evaluating FDI, it is not enough to identify a potential benefit, but whether this benefit will be shared equally. If the poor farmers receive no benefit, then the FDI is not an advantage. Oxfam is of the opinion that only the MNC's and the Government officials will benefit, but this is probably an exaggerated view. As highlighted in paragraph 3, such FDI provides jobs and a necessary diversification of the economy. Dependence on a few commodities is one of the major barriers to growth and development for many LDC's. Production of biofuel will provide Kenya with a vital export product which will bring in much needed foreign currency and an additional source of Aggregate Demand that could stimulate economic growth. In addition, some MNC's are keen to help the local economy by providing jobs, training and infrastructure projects which will make a positive contribution to growth and development. Since biofuel is derived from agriculture, it constitutes a renewable energy source and is therefore a source of sustainable development.

Overall, the increase of FDI in Kenya is likely to lead to long run benefits through job creation diversification and increased export revenues. These benefits should outweigh the short term costs of displacement of some farmers and the possible exploitation of workers. Biofuel production is eco-

friendly and avoids the negative externalities associated with the extraction of oil or coal. It also links industrial production to the raw material source and this provides a genuine source of economic diversification. Without FDI, it is virtually impossible for an LDC to break out of the poverty cycle and make necessary progress towards export led growth.

Question 5. Study the extract below and answer the questions that follow.

Infrastructure and trade are the keys to Economic growth for Africa

(1) Ever since the publication of “Dead Aid” by Dambisa Moyo, officials in the developed countries have sought to cut back on aid promises by claiming that aid is not essential and might even be counterproductive. The popular view is that aid creates a dependency that stifles initiatives and props up corrupt governments.

(2) Supporters of this view claim that Africa needs to take control of its destiny and open up its markets to competition and to trade freely with the rest of the world. Governments must improve **infrastructure** in order to attract investment and facilitate export led growth.

(3) Aid agencies in Africa argue that the poverty cycle cannot be broken without aid and that without famine relief programmes millions would face starvation. A spokeswoman for Oxfam said that “Politicians treat all aid the same and use examples of bad aid to justify giving less than their agreed 0.7% of GDP in aid”.

(4) A former, disillusioned economist at the World Bank claims that the conditions imposed on aid recipients by the Bank and the IMF are responsible for many of Africa’s problems and in particular the forced structural adjustment programmes and privatisations.

(5) A sharp rise in commodity prices has led to an improvement in Africa’s **terms of trade**, but growth based on commodity exports is not sustainable. Investment in infrastructure and diversification into manufacturing is essential for long term sustainable development. If aid is directed to such projects, it can provide the necessary stimulus to growth and trade. The choice should not be aid or trade but rather aid for trade.

i) (i) Define the term *infrastructure* indicated in bold in the text (*paragraph 2*)

(2 marks)

(ii) Define the term *terms of trade* indicated in bold in the text (*paragraph 5*)

(2 marks)

b) Using an appropriate diagram, explain the nature of the poverty cycle (*paragraph 1*)

(4 marks)

c) Explain why 'growth based on commodity exports is not sustainable' (*paragraph 5*)

(4 marks)

d) Using information from the text and your knowledge of economics, evaluate the role of aid in promoting growth and development in Africa.

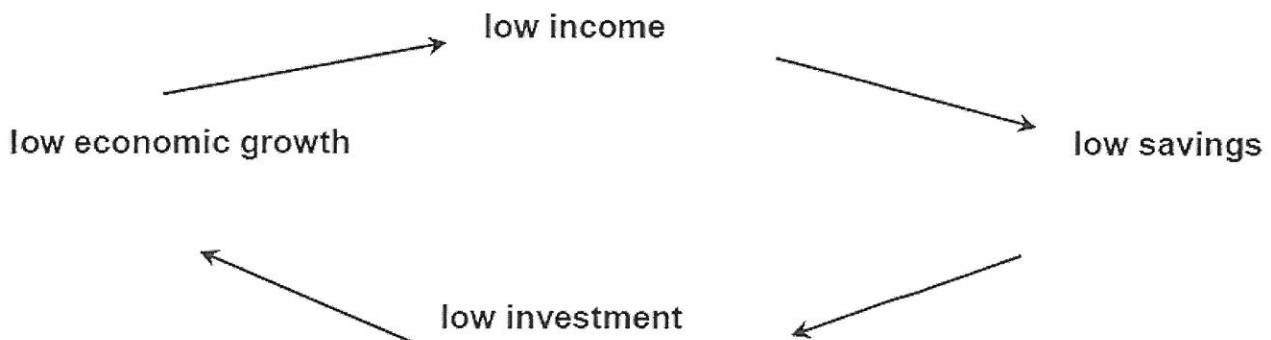
(8 marks)

Answer:

a) (i) Infrastructure refers to social capital, usually provided by the government, that is necessary for economic activity to occur, such as roads, communications and other utilities.

(ii) Terms of trade are an expression of the relative prices of exports and imports for a country presented as an index number as follows: $\text{Index of Export prices} / \text{Index of Import prices} \times 100$.

b) The poverty cycle shows how low income is perpetuated because it leads to low savings, which in turn causes low investment and low levels of economic growth as follows:



c) Growth based on commodity exports is not sustainable because non-agricultural commodities such as copper, gold, tin and aluminium are non-renewable resources. Therefore, by using them now there will be less and eventually none available for future generations. Although extracting and exporting these commodities generates growth, it can only be for a limited time and therefore it is not sustainable.

d) The role of aid in promoting growth and development is very difficult to assess because it is never possible to isolate aid from other factors which also play a part. To say that a country has received X amount of aid and has failed to show much progress is easy, but we can never know what the country would have achieved without aid. Dambisa Moyo is an influential author because she has first-hand knowledge of Africa and aid and her book referred to in paragraph 1 has initiated a healthy debate about aid effectiveness. Clearly some types of aid are better than others and paragraph 3 warns of treating all forms of aid in the same manner. Most NGO's and aid agencies like Oxfam would support

the view that aid is essential to prevent starvation and help countries to break out of the poverty cycle. Providing food and basic education and health care will undoubtedly improve living standards for many and will contribute to future growth and development through improved labour productivity as well as enhanced HDI measures (which include education and health). The worst type of aid is bilateral tied aid which often aims to benefit the donor country by forcing the recipient country to spend the aid on items imported from the donor country. This type of aid could well be phased out with countries no longer being caught up in a cycle of dependency. Even well-meaning conditions like those imposed by the IMF can be counterproductive as implied by the reference in paragraph 4. The Nobel prize winning economist Joseph Stiglitz is particularly critical of policy conditions imposed on LDC's by the World Bank and IMF.

The 'Aid is bad' view is a bit simplistic and it is unfair to treat all types of aid as identical. Nevertheless, the debate is important in identifying the 'bad' types and the ways that aid can support corrupt governments and create dependency on the donor countries. Aid must be separated from political influence and must be targeted to poverty reduction and development projects. It should be channelled into industrial diversification and infrastructure so that the LDC's can secure a wider economic base with which to engage in trade. Rather than exporting cotton, a country could achieve much more value added by manufacturing and exporting cotton clothing. Once a country has sufficient goods to export, it can pursue export led growth and stand on its own feet without depending on aid. As suggested in paragraph 5, aid for trade is what is needed in order to achieve the necessary diversification to participate in world markets.

Overall, it is difficult to assess the potential contribution of aid to growth and development because much aid can be misused and has been misused in the past. Aid that props up corrupt regimes and benefits the donor country is of no value for growth and development, but aid that relieves poverty and improves education or health will clearly promote growth and development. Vaccinating children and distributing mosquito nets must surely make a positive contribution to a country's development.

Question 6. Study the extract below and answer the questions that follow

Mexico and Brazil show that state run social policies can have dramatic effects

(1) Brazil used to have one of the world's most unequal distributions of income and therefore a correspondingly high level of **relative poverty**, but over the past decade it has achieved the fastest reduction in inequality of any country. Between 2003 and 2009 poverty has fallen from 22 percent of the population to 7 percent and poor Brazilians have experienced income growth as much as seven times higher than that of rich Brazilians.

(2) The main credit for this remarkable achievement must go to the government and its conditional cash transfer (CCT) program. It is known as Bolsa Familia (Family Grant) in Brazil and involves the giving of cash to poor mothers on condition that their children attend schools and have vaccinations and that the mothers attend workshops about healthcare and nutrition.

(3) A similar scheme has been applied in Mexico where it is known as 'oportunidades' with equal success and covers some 30% of the population. The cash transfers are relatively modest, but their regularity is enough to provide the incentive for families to meet the conditions. This not only lifts the families out of their current poverty, but provides a source of long term development by raising the

HDI as well as reducing the Gini coefficient.

(4) Even though inequality is falling in these countries, it tends to be rising in the developed countries of the world. The Gini coefficient for the USA is rising almost as quickly as Brazil's is falling so that it won't be long before income inequality is the same in both countries. This development casts some doubt on the claim that the free market is more successful in achieving social goals than government intervention.

(5) Critics of CCT programs argue that corruption will prevent the poor from receiving the cash and that the conditions are often unrealistic. In many poor countries there are simply not enough school places for the conditions to be met.

(6) CCT programs are by no means a perfect solution to global poverty, but they have had impressive results and are currently being applied in 40 countries. In all cases, there has been a marked improvement in health, nutrition and educational achievement.

i) (i) Define the term *relative poverty* indicated in bold in the text (*paragraph 1*)

(2 marks)

(ii) Define the term *HDI* indicated in bold in the text (*paragraph*)

(2 marks)

b) Using an appropriate diagram, explain how CCT programs can promote long term development. (*paragraph 3*)

(4 marks)

c) Using a Lorenz curve diagram, explain the change in income distribution in Brazil over the past decade (*paragraph 1*)

(4 marks)

d) Using information from the text and your knowledge of economics, evaluate the view that the success of CCT programs shows that government intervention is more effective than the free market in promoting growth and development.

(8 marks)

Answer:

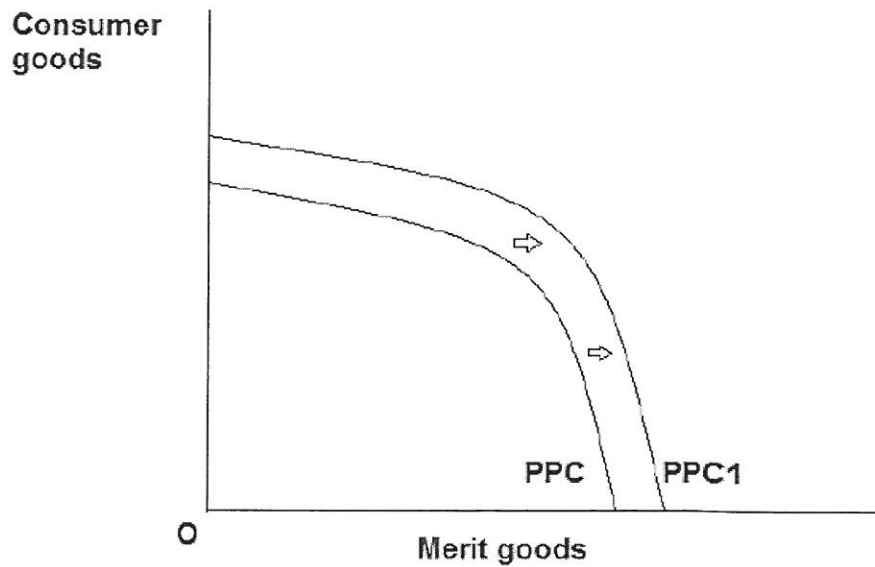
i) (i) Relative poverty exists when a person's income is less than 50% of the national average.

(ii) HDI is a composite measure of welfare or standard of living that includes income, education and health e.g. through adult literacy and life expectancy.

b) CCT programs can promote long term development because they are conditional on sending

children to school and having health checks which both contribute to development and labour productivity. This would have the effect of shifting the PPC outwards as shown in diagram 1

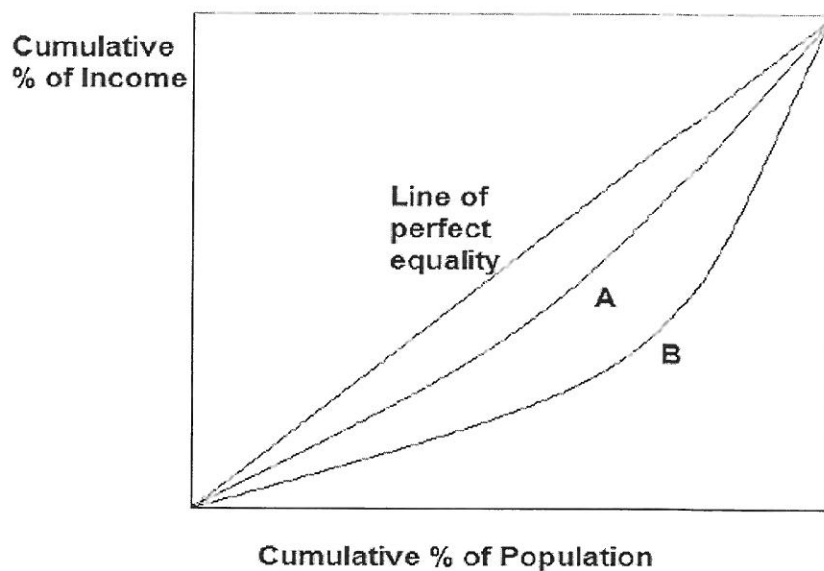
Diagram 1



The shift from PPC to PPC1 brings an increase in potential output of consumer and merit good and thus increases long term development and growth.

c) Diagram 2 represents a Lorenz curve diagram for Brazil and shows that as a result of the CCT program income inequality has decreased. The 45 degree line shows perfect equality of income distribution and the Lorenz curve for Brazil has shifted closer to this line from curve B to curve A.

Diagram 2



d) The text overwhelmingly supports this view and the reduction in poverty and income inequality described in paragraph 1 is truly impressive. The Gini coefficient mentioned in paragraphs 3 and 4 is a measure of income inequality as shown by the Lorenz curve. It has a value between 0 (perfect equality) and 1 (perfect inequality) so a decrease in the coefficient means greater equality of income distribution. The fact that the degree of income inequality in the USA has increased compared to that of Brazil indicates that government intervention has had a greater impact than the free market in achieving social goals. Income inequality is considered to be a major barrier to growth and development in LDC's so any improvement will have a positive effect on long term prosperity and development.

As well as reducing income inequality, when CCT programs have been applied, "there has been a marked improvement in health, nutrition and educational achievement." (paragraph 5). This also has a positive impact on growth and development in the long run as shown in b) above.

The free market is likely to underprovide merit goods such as education and health care, so government intervention is usually needed to compensate for this under provision. CCT programs, however, could be seen as a type of market based solution to the problem because by providing cash to poor families it allows them to spend it on the type of education or health care that they want and this could be provided by the private sector.

One problem, mentioned in paragraph 4, is that there are not enough school places to accommodate the children who want to attend school through the CCT program in some countries. This problem could be solved by allowing cheap private schools to set up and to give CCT grants to pay for school fees.

There is no reason why the state and the private sector should not work together to overcome the barriers to development. Private sector provision may be more efficient and the state could limit its role to providing the necessary finance to pay school and health fees.

The problem of corrupt government officials implied in paragraph 5 is a significant failing in many LDC's but it would appear that the success of the CCT program in so many countries has minimized this problem.

The undoubted success of CCT programs shows that government intervention of this kind can

have a significant impact on a country's future growth and development, while waiting for the free market to provide a similar stimulus could be less effective. This does not, however, mean that the market has no role to play in development. It can and should be complementary to government projects and provide the poor with a choice rather than an inferior government service.